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ON APHASIA.

BEING THE ABSTRACT OF REMARKS MADE BEFORE THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK, DECEMBER 19, 1870.

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THE term *Aphasia*, in its broadest sense, indicates a morbid condition in which the ability to express ideas, whether by word spoken or written, or by gesture, is impaired or destroyed, and this, whether the impairment or destruction be due to want of power to recall and retain in the mind the symbols of thought, or to want of control over the muscles which should be called into action to express them. These two classes of cases, though at first confounded, are of course widely different; and when they came to be distinguished, those in which the patient cannot recall at will the symbols of thought, were designated cases of *amnesic aphasia*; while those in which, though recollecting, he cannot express them, from paralysis or inco-ordination of the muscles of articulation or expression, were called cases of *ataxic aphasia*. At present, when the word aphasia is used alone, it must be understood as referring to the amnesic form, and as having special regard to spoken or written language (or to the language of gesture, so far as this is arbitrary and conventional rather than instinctive).

Aphasia, then, as defined by the speaker, is "a condition produced by an affection of the brain by which the idea of language, or of its expression, is impaired. . . . . It does not include those cases in which the individuals are able to speak, but will not, such as are met with among the insane" and the hysterical. . . . . "Neither does it embrace cases of inability to speak from paralysis of the tongue or other muscles of articulation." It is also to be distinguished from aphonia, in which "the idea of speech is undisturbed, and articulation is not interfered with except as regards phonation. Aphonic patients can whisper, but are unable to speak in full voice, owing to some laryngeal affection impairing the tone of the vocal cords."

The fact that the faculty of speech may be deranged independently of the will, of paralysis, or of loss of voice, attracted early notice, as shown by quotations from Isaiah, Thucydides, Pliny, and Suetonius. Passing over intermediate writers, Crichton, in 1798, clearly describes cases of the affection coming under his own observation, and cites a number of others from German authors. In 1812, Dr. Rush, of this country (*Medical Inquiries and Observations upon Diseases of the Mind*), refers specifically to various forms of aphasic aberration of memory, though his observations seem to have escaped notice. He says: "1. There is an oblivion of names and vocables of all kinds. 2. There is an oblivion of names and vocables, and a substitution of a word no ways related to them. Thus I knew a gentleman afflicted with this disease, who, in calling for a knife, asked for a bushel of wheat. 3. There is an oblivion of the names of substances in a vernacular language, and a facility of calling them by their proper names in a dead or foreign language. . . . . 4. There is an oblivion of all foreign and acquired languages, and a recollection only of vernacular language. Dr. Scandella, an ingenious Italian, who visited this country a few years ago, was master of the Italian, French, and English languages. In the beginning of the yellow fever which terminated his life, in the city of New York, in the autumn of 1798, he spoke English only; in the middle of his disease he spoke French only; upon the day of his death he spoke only in the language of his native country. 5. There is an oblivion of the *sound* of words, but not of the letters which compose them. I have heard of a clergyman in Newburyport, who, in conversing with his neighbors, made it a practice to spell every word that he employed to convey his ideas to them. 6. There is an oblivion of the mode of spelling the most familiar words. I once met with it as a premonitory symptom of palsy. It occurs in old people, and extends to an inability, in some instances, to remember any more of their names than their initial letters. . . . . 9. There is an oblivion of names and ideas but not of numbers. We had a citizen of Philadelphia, many years ago, who, in consequence of a slight paralytic disease, forgot the names of all his friends, but could designate them correctly by mentioning their ages, with which he had previously made himself acquainted." Dr. Rush remarks of these cases, that "there appears to be something like a palsy of the mind, *quoad* these specific objects."

Thus far there had been no attempt to define with precision the seat of the faculty of language, or even to establish its existence. But early in the present century Gall was led by his observations to infer the existence of such a faculty, and to locate it in those convolutions of the brain resting on the posterior part of the supraorbital plate. This was the beginning of his system of phrenology.

Gall had adduced, in support of the theory that there is an independent faculty of language, two cases in which this faculty was lost without other impairment of the memory. In 1825, Bouillaud brought forward a large number of such cases; and upon a basis of sixty-four autopsies of brain-lesions, which in the aphasic cases had proved to be invariably located in the anterior lobes, in the non-aphasic, elsewhere—he announced his adhesion to the view that the function of articulate language was presided over by a separate faculty of the mind, and that its organ was located in the anterior lobes of both hemispheres. Bouillaud first clearly brought out the distinction between amnesic and ataxic aphasia, "dividing the faculty of speech into two distinct categories of phenomena: 1. The faculty of creating words as representatives of our ideas, and of recollecting them—internal speech. 2. The power of co-ordinating the movements necessary for the articulation of these words—external speech." Many of his patients exhibited

no other symptom of cerebral disorder than the loss of the power of language. They preserved their intelligence, comprehended perfectly questions put to them, and knew the value of words; but, although there was no paralysis of either tongue or lips, they were unable to utter a word. The lesions in these cases were, as above stated, always in the anterior lobes.

Bouillaud's position was violently assailed by Cruveilhier, Andral, Lallemand, and others, who reported opposing cases. He stoutly maintained it, however; brought up the total of his cases to one hundred and three in support of his doctrine; and offered a prize for any case of profound lesion of the anterior lobes without troubles of speech. Further to fortify his ground, he performed some experiments upon dogs, which, however, can hardly be taken as satisfactory. "But unintentional experiments have been performed upon the human subject, which tend to show that, though the faculty of language may be located in one or both anterior lobes, yet either may be seriously injured without that faculty's suffering to any appreciable extent."

These cases we have not space to quote in full. One, now famous, is related by Dr. Harlow, in *Boston Med. and Surg. Journ.*, December, 1849, vol. xxxix., p. 389; by Dr. Bigelow, in *Am. Journ. Med. Sciences*, July, 1850; and in *Catalogue of Warren Anatomical Museum*, Boston, 1870, p. 145. On 13th September, 1848, a healthy man, twenty-five years old, was ramming down, with a tamping iron, a charge of powder for a blast. The charge exploded and drove the iron through his head. The bar (which was upwards of three and a half feet long, by an inch and a quarter in diameter, and weighed thirteen and a quarter pounds) entered by its upper, pointed end, at the left angle of the lower jaw, and passing upward and inward, escaped about the site of the anterior fontanelle, being thrown to a distance of several rods. The man recovered and lived till May 21, 1861, exhibiting full command of language all the while, though changed in disposition. On his death, the skull was obtained for the Warren Museum. It shows that the left anterior lobe of the brain must have suffered severely, though the third frontal convolution and the island of Reil escaped injury.

Another case, almost as remarkable, is described in the same *Catalogue*, p. 149: A healthy, intelligent coalminer, by an accident similar to the last, May 14, 1867, was transfixed through the head by an iron gas-pipe, which entered at the junction of the middle and outer thirds of the right supra-orbital ridge, and emerged near the junction of the left parietal, occipital and temporal bones. It remained projecting from the front and back of the head, and required considerable force for its withdrawal. In two months the man was walking about. In June, 1868, he was exhibited to the Massachusetts Medical Society, his mind considerably impaired, but not so as to exhibit to a stranger any marked deficiency during a few minutes' conversation. Here the right anterior lobe must have been seriously injured.

M. Peter (quoted by Trousseau, *Clinical Medicine*, Eng. trans., vol. i., p. 256) relates the case of a cavalryman who fell on the back of his head, fracturing the skull. In his delirium he talked incessantly, shouting the worst oaths, and holding connected conversations with the persons of his imagination. On his death, thirty-six hours after, both anterior lobes of the brain were found disorganized in the whole thickness of their front part, from *contre-coup*, though the posterior lobes had escaped injury.

Other cases quite as conclusively prove the untenableness of Bouillaud's first position. Latterly, however, he has admitted that the organ of language may occupy, not the whole of either anterior lobe, but the posterior part of it.

In 1836, Dr. Marc Dax propounded the view that the faculty of language was seated not, as Gall and Bouillaud had contended, in both anterior lobes of the brain, but only in the left anterior lobe. He founded this opinion on one hundred and forty cases of aphasia attended with right hemiplegia, in which the lesion causing the paralysis, and presumably the aphasia also, must of course have been in the left side of the brain. His paper attracted strangely little attention until rescued from obscurity by his son some twenty-seven years later.

Passing over, for the present, the many cases confirmatory of this view, and the few which seem to contradict it, we come to the famous discussion in the Anthropological Society of Paris, in 1861, where Auburtin, who stood forth as the champion of Bouillaud's views, was opposed by Gratiolet and Broca. In the course of the discussion reference was made to a case of aphasia, complicated with right hemiplegia, then under Broca's care. Auburtin agreed to renounce his position if the post-mortem did not reveal disease of the anterior lobes. This case was the now historical one of Le Borgne, or "Tan." (See account of it in *Trousseau's Clin. Med.*, Eng. Transl., vol. i., p. 243). The man died, and the lesion was found in the left anterior lobe. More exactly, "it involved the inferior marginal convolution of the temporo-sphenoidal lobe, the convolutions of the island of Reil, and, in the frontal lobe, the frontal transverse convolution, and the posterior half of the second and third frontal convolutions. The left corpus striatum was also affected. According to Broca, the disease had in all probability begun in the third frontal convolution, and gradually extended to the other parts,—the paralysis marking the implication of the island of Reil and the corpus striatum."

This case determined M. Broca's conversion to the doctrine of localization in general, and to that of the localization of the faculty of language, in particular, where Bouillaud had placed it. Another, which occurred in his service soon after, led him to carry the doctrine to a further extreme than any of his predecessors had done. This second case "was that of a man named Le Long, aged eighty-four years, who had entered the hospital for a fracture of the neck of the femur. Eighteen months before, he had been treated in the medical service for a temporary apoplexy, which had deprived him of the faculty of speech, but had caused no paralysis. Le Long, whose intelligence, facial expression, and ability to gesticulate were very striking, made himself perfectly well understood, although able to pronounce indistinctly a very few words, but which were nevertheless properly applied. These words were *oui*, *non*, *toujours*, *tois* (for *trois*), and *Lelo* for *Le Long*. Thus, when asked, 'Can you write?' he answered, 'Oui?' 'Have you any children?' 'Oui?' 'How many?' 'Tois,' but at the same time, as if aware that he was not answering correctly, he raised four fingers. 'How many boys?' 'Tois,' raising two fingers. 'How many girls?' 'Tois,' holding up two fingers. 'What time is it by this watch?' 'Tois,' at the same time raising ten fingers to signify that it was ten o'clock. 'How old are you?' To this question he replied by two gestures, the one consisting of raising eight fingers, the other of four fingers, by which he meant that he was eighty-four years old.

"Aside from this application of the word *tois* to all numbers, his answers were perfectly correct. The tongue was neither paralyzed nor thickened on one side; the larynx was mobile, and his limbs possessed

their normal power for his age. It was, therefore, a case of pure aphasia, or, as Broca then designated the affection, aphemia.

"Twelve days after the accident, the patient died. The post-mortem examination revealed the existence of lesions almost identical in situation with those of the former case. The posterior part of the third left frontal convolution, and the contiguous part of the second, had been absorbed and replaced by a serous fluid. Two cases can scarcely decide any point in pathology, but, without venturing to assert positively that the organ of language resides exclusively in the posterior part of the third frontal convolution, M. Broca expressed the opinion that the integrity of this convolution, and perhaps of the second, is indispensable to the normal operation of the function of speech.

"Many cases were adduced by Charcot, by Falret, by Perroud of Lyons, by Trousseau, and others, in support of the localization of the faculty of articulate language in the left side of the brain. Most of these cases were accompanied by right hemiplegia, and in several, post-mortem examinations showed the lesion to exist in the parts designated by Broca.

"In the early part of 1863, M. G. Dax, son of the M. Dax who had placed the organ of language in the left hemisphere, presented, through M. Lelut, a memoir to the Academy in which he claimed with his father that aphasia was always the result of lesion of the left hemisphere; but he assigned a still more restricted position, by limiting it to the anterior and exterior part of the middle lobe. He cited forty cases of loss of the power of speech, coincident with lesion of the left hemisphere.

"Now, besides these direct cases, there are others which bear with almost as much effect on the affirmative of the doctrine in question. Thus, M. Fernet, in 1863, presented a case to the Société de Biologie, in which there was left hemiplegia, but no aphasia. After death, softening of the right hemisphere from thrombosis of the right middle cerebral artery was found to exist. M. Parrot adduced another case in which there was complete atrophy of the island of Reil, and of the third convolution of the right side, but in which there was no trouble of speech. These cases go to show that the organ of articulate language is not situated in the right hemisphere."

M. Lesur has reported a very interesting case, where a child, trephined about an inch and a quarter above the left eye, lost the power of speech whenever pressure was made upon the brain through the opening, regaining it when the pressure was removed. A similar case had occurred in Dr. Hammond's own practice.

"Among British writers, Dr. Hughlings Jackson (*London Hospital Reports*, vol. i.) has given the histories of thirty-four cases of loss of speech coinciding with right hemiplegia. He is entitled to the credit of making a beautiful application of anatomy and physiology to the pathology of the subject under consideration. The part of the brain designated by Broca as the seat of the organ of articulate language is nourished by the left middle cerebral artery. An obstruction of this artery would of course interfere with the perfect action of that region, and thus aberrations of speech would be produced. But the same artery also supplies blood to the corpus striatum of the same side. Hence the frequency with which aphasia is associated with right hemiplegia. The cause of the obstruction is generally, according to Dr. Jackson, embolism; for in twenty of his cases the heart was more or less affected, and in thirteen of them there was valvular disease."

Other British writers on the subject are Sanders, Moxon, Ogle, Bateman, and Bastian. The Germans seem to have paid little attention to the matter since 1861, though before that time they had published excellent memoirs, pre-eminent among which must be mentioned that of Bergman, in 1849. In our own country, we have already seen that the subject early attracted attention. More recently Prof. Austin Flint (MEDICAL RECORD, vol. i., p. 4, March 1, 1866) has reported six cases attended with hemiplegia, in one of which the autopsy showed extensive softening of the left anterior lobe; and in four, in which the situation of the hemiplegia was noted, this was upon the right side. Dr. H. B. Wilbur has a memoir upon aphasia in idiots in *Am. Journ. of Insanity*, July, 1867. Dr. E. C. Seguin has an important memoir, giving a history of the subject, reports of forty-eight cases from records of the New York Hospital, and valuable statistical tables, in *Quar. Journ. Psychol. Med.*, January, 1868. Dr. Roberts Bartholow reviews the subject, and reports three cases, in the same journal for April, 1868. Dr. T. W. Fisher has a very philosophical paper, and a report of thirty-eight post-mortem examinations, in *Boston Med. and Surg. Journ.*, September 1, 1870, et seq.

"With this outline statement of the history of the subject of aphasia, we are in a position to inquire more fully into the evidence which locates the organ of language in a particular region of the brain. A clear idea of the anatomy of the parts fixed upon latterly as the seat of the faculty will aid in the understanding of the subject." The following account is condensed by Trousseau (*Op. cit.*, p. 245), from Broca's description in his essay *Sur le Siége de la Faculté du Langage Articulé*:

"The sulcus of Rolando separates the frontal from the parietal lobe, running obliquely from above downwards along the outer surface of the hemisphere, and beginning at the median fissure between the two hemispheres, and ending in the Sylvian fissure. It is limited, anteriorly, by the transverse frontal convolution, posteriorly by the transverse parietal convolution. The anterior or frontal lobe comprises, therefore, laterally, all that portion of the hemisphere which is situated in front of the sulcus of Rolando, and inferiorly all that portion which is in front of the Sylvian fissure. The lower portion of the frontal lobe consists of the orbital convolutions, whilst its upper and lateral portions are constituted by the frontal convolutions properly so called. These are three in number: an upper, or first frontal convolution, a middle or second convolution, and a lower or third frontal convolution. They are all directed from before backwards, and terminate, after a more or less tortuous course, in the transverse frontal convolution, of which they seem to be the ramifications. The third frontal convolution is free in its upper half, and separated from the temporo-sphenoidal lobe by the Sylvian fissure, of which it forms the upper margin. It is on account of this relation that the third frontal convolution is sometimes termed the *upper* marginal convolution, whilst the name *lower* marginal convolution is restricted to the first temporo-sphenoidal convolution. When the two marginal convolutions, the upper and lower, are drawn away from the Sylvian fissure, there is seen a large and slightly prominent eminence from the summit of which proceed five small simple convolutions, or rather five rectilinear folds radiating in a fan-like manner. This eminence is the *lobule of the insula*, which covers the extra-ventricular nucleus of the corpus striatum, and which, rising from the bottom of the Sylvian fissure, is structurally continuous by its cortical layer with the deepest portion of the two marginal convolutions. The result of these structural relations is that a lesion which extends by continuity from the frontal to the temporo-sphenoidal lobe, or the reverse, must necessarily pass through the lobule of the insula and then affect the extra-ventricular nucleus of the corpus striatum."

"The lobe of the insula, or island of Reil, is found in no other mammal than man and the monkey. In the latter, however, it is very slightly developed, and

has no trace of convolutions. In aberrations of speech this part is very often involved in the lesion."

Now, although several cases on record appear to show that lesion of the third left frontal convolution is sufficient to produce derangement of the faculty of speech, yet the weight of evidence is decidedly against limiting the seat of the organ to this part. Thus, of five hundred and fifty-six cases of aphasia tabulated by Seguin, this convolution was damaged in but nineteen; moreover, of fifty-two autopsies, made with special reference to this point, only eighteen favored Broca's doctrine while thirty-four opposed it. Other cases might be cited, but these are sufficient to decide the question against the doctrine. Indeed, a single instance of aphasia occurring without lesion of the third frontal convolution, would, of course, invalidate the claim that this part is the exclusive seat of the organ of language.

The theory of Marc Dax, as we have seen, locates the faculty of speech in the left hemisphere; it is based upon the association of aphasia almost, if not quite invariably, with right hemiplegia, when there is any paralysis at all. That this is the fact in the vast majority of cases, there can be no question. In one of Dr. Seguin's tables we find two hundred and forty-three cases of aphasia associated with right hemiplegia, against seventeen cases of the affection with left hemiplegia. Another table, of autopsies in five hundred and forty-five cases of aphasia, shows the left anterior lobe to have been the seat of the lesion in five hundred and fourteen, against thirty-one cases where the lesion was located elsewhere. Of eighty-two additional cases from other sources, the left hemisphere was shown, either by post-mortem or by the hemiplegia, to have been the one affected in eighty, the right in two.

How shall we explain this immense preponderance of disease of the left hemisphere, and especially of its anterior lobe, as a concomitant of aphasia? We cannot admit that the organ of language is situated in the left anterior lobe, or even in the left hemisphere, to the exclusion of the other; for the fact remains that lesion of the right hemisphere is sometimes followed by aberrations of speech, the left being perfectly healthy. "One such case—and there are several on record in which the autopsy confirmed the deductions drawn from the symptoms—is sufficient to overturn the theory which restricts the situation to one side of the brain; and one such as that reported by Dr. Simpson (*Med. Times and Gazette*, Dec. 21, 1867), in which there was extensive lesion of the third left frontal convolution in its posterior part, and no epilepsy, paralysis, or aberration of speech, is, of course, utterly destructive of Broca's views.

"The fact that aphasia is more frequently conjoined with right hemiplegia is undoubtedly due mainly to the fact, that the left middle cerebral artery is much more liable to be plugged by an embolus than the right, and it is by embolism that aphasia is generally caused. Dr. Hughlings Jackson (*loc. cit.*) has very satisfactorily worked out the relation, and my own experience . . . . abundantly confirms the fact. At the same time it appears to be clearly shown that the left anterior lobe, or rather, in accordance with Dr. Jackson's views, those parts of the brain nourished by the left middle cerebral artery, are more intimately connected with the faculty of articulate language than any other region of the encephalic mass. It is probably true, as originally advanced by Dr. Moxon (*Brit. and For. Med.-Chirurg. Rev.*, April, 1866, p. 481), and since urged by Dr. William Ogle (*St. George's Hosp. Reports*, vol. ii., p. 83), that the organ of speech is to be found in both hemispheres, and that one side is more generally employed than the other, just as we ordinarily give a preference to one eye or one ear or one hand; and that this side is the left. Gratiolet's facts, adopted by Broca to support his view of exclusiveness, will certainly lend force to the argument in favor of preference. This careful anatomist found that the left hemisphere is developed before the right, and that it is better nourished. Both of these circumstances are owing to the greater supply of blood which it receives.

"Undoubtedly many of the cases which have been brought forward as militating against the doctrine of localization of the organ of speech, are not cases of aphasia at all, but simply instances of inability to speak, from paralysis of the muscles concerned in speech. . . . . Again, in very many instances the post-mortem examination has not been properly made, and lesions involving one or the other anterior lobe have been overlooked. It is now a well-recognized fact, that the cerebral tissue may be materially diseased, and the lesion not be detected without microscopical examination.

"Giving a very full consideration, therefore, to the facts and arguments which have been urged on all sides of the question, I am constrained, while rejecting the restricted location of M. M. Dax, and the still more limited situation contended for by Broca, to believe—

"1. That the organ of language is situated in both hemispheres, and in that part which is nourished by the middle cerebral artery.

"2. That, while the more frequent occurrence of right hemiplegia, in connection with aphasia, is in great part the result of the anatomical arrangement of the arteries, which favors embolism on that side, there is strong evidence to show that the left side of the brain is more intimately connected with the faculty of speech than the right."

Dr. Hammond now gave the histories of fourteen cases of aphasia, which had come under his own observation. We give some of them, mostly in bare outline, referring the reader for the details, as well as for a more complete statement of the speaker's views, to his forthcoming work on Diseases of the Nervous System:—

Case 1 was one of amnesic aphasia, without paralysis or incoördination, from a blow on left temple. The autopsy showed an ecchymosed spot the size of a half-dollar, involving the left anterior lobe at its lateral and posterior margin. Death was due to subsequent meningeal hemorrhage.

Case 2.—A sea-captain, while giving an order, suddenly fell unconscious on the deck. He soon regained his senses, to find that he had lost power over the right half of his body, and also the ability to speak. His aphasia was both amnesic and ataxic, and he could no more write than speak. He had rheumatic heart-disease.

Some three months afterwards he had nearly recovered from the hemiplegia, and had regained his speech, when he had a second attack, this time without paralysis of motion, but with loss of sensibility on the right side. "The memory for words was entirely destroyed, though he could pronounce distinctly any word he was told to say, if he did not allow too long a period to elapse between the direction and the response.

"About four months after his last seizure he consulted me. At this time he could say a few words, and he employed them to express all his ideas, assisting himself with very energetic gestures, which, however, were rarely expressive of his thoughts. The words he thus constantly used were *sifi*, which signified both yes and no, and *time of day*, which he employed when he had any other answer than simple affirmative or negative to give. Besides these expressions, he had an oath, *Hell to pay!* which he ejaculated

whenever he did not succeed in making himself understood, and sometimes without any such exciting cause. These were the only expressions he could originate; but he could pronounce distinctly any word he was told to say, and even as many as three short successive words. When told to write, he took the pen, and, on my telling him to give me his name and address, wrote 'Time of day,' and then, seeing that that was not the correct answer, immediately followed it with 'Hell to pay!' On my remarking to him, that he had given me wrong information, he immediately wrote 'Sili.' Any word, however, which I told him to write, he did without any difficulty, and thus I obtained several long sentences from him."

The main point of interest about this case is the occurrence of ataxic aphasia with hemiplegia, as concomitants of the first attack, while the second was characterized by purely amnesic aphesia, and no paralysis."

Case 3 was one of amnesic aphasia without paralysis, from a blow on left temple. Diagnosis of fracture of the internal table was made; trephining was practised a few days afterwards; a splinter, found pressing on the posterior frontal convolution, was removed; and the aphasia was at once and perfectly cured.

Case 4 exhibited both the amnesic and the ataxic form of aphasia, and was accompanied by right hemiplegia. These affections, which came on gradually, were probably caused by softening, from thrombosis of the left middle cerebral artery.

Case 5 was one of purely ataxic aphasia, attended by profound right hemiplegia, and was attributed, like the last, to thrombosis of the left Sylvian artery.

Case 6 had a history of five attacks of right hemiplegia, doubtless from embolism, with partial amnesic aphasia, and also with ataxic aphasia, which disappeared with the hemiplegia.

Case 7 showed both amnesic and ataxic aphasia, with right hemiplegia. Diagnosis, embolism of left Sylvian. (This case, which is of much interest, will be reported in full in the *Psychol. Jour.* for April. Cases 5 and 6 may be found in the number for January, 1871, pp. 2, 10.)

Case 11 was one of ataxic aphesia with right hemiplegia; diagnosis, hemorrhage involving the left corpus striatum.

Case 13.—Vertigo, right hemiplegia, and slight difficulty of speech, both amnesic and ataxic. Some months later, an attack of left hemiplegia with no difficulty of speech. A third attack is characterized by right hemiplegia and aphasia; a fourth and a fifth by delirium and hemiplegia—that of the left side unattended by aberrations of language; that of the right accompanied by ataxic and amnesic aphasia.

"He forgot the names of the most ordinary things, and there were many words that he could not articulate at all. Thus, when he wanted a fan, he called it 'a large flat thing to make a wind with.' He forgot my name, and could not pronounce the words *beetle, general, physician,* and many others. I sent him to Newport greatly improved; but he had other attacks while there, and finally died in the autumn of the present year, of, I presume, cerebral softening.

"The interesting features of this case are the concurrence of hemiplegia and ataxic and amnesic aphasia, and the striking fact that there was no aphasia when the paralysis involved the left side. Thus, according to my views of the case, the patient had repeated attacks of cerebral embolism. When the embolus lodged in the left middle cerebral artery, there was aphasia accompanied by right hemiplegia; when the embolus obstructed the right middle cerebral artery, there was left hemiplegia but no aphasia."

Case 14 is similar to the last. The patient, with a history of rheumatism and a bellows-murmur, has eleven attacks of vertigo, unconsciousness, and hemiplegia. When the last is on the left side there is no aphasia; when on the right, there is well-marked difficulty of speech, both amnesic and ataxic. (This case, also, will appear in the clinical lecture on Aphasia in the April *Psychological.*)

A case resembling the last two is reported by Stewart, in *Med. Times and Gazette*, July 9, 1864.

"The views which the cases I have observed have led me to form, have been confirmed by my recent study of the subject of aphasia. These have already been given in part, but the detail of the foregoing histories enables me to express the remainder with more confidence.

"It cannot have failed to strike the hearer that, in all the cases of which hemiplegia formed a feature, the aphasia was of the ataxic form, while, when there was no hemiplegia, the aphasia was amnesic. In the one, the individual was deprived of speech, because he could not coördinate the muscles used in articulation; in the other, because he had lost the memory of words. This is a point which has not hitherto been noted. The phenomena indicate, I think, very clearly the seat of the lesion, and the physiology of the parts involved.

"The gray matter of the lobes presides over the *idea* of language, and hence over the memory of words. When it only is involved, there is no hemiplegia, and there is no difficulty of articulation. The trouble is altogether as regards the memory of words.

"The corpus striatum contains the fibres which come from the anterior column of the spinal cord, and is, besides, connected with the hemisphere. A lesion, therefore, of this ganglion, or other part of the motor tract, causes paralysis of motion on the opposite side of the body. The cases I have detailed show, without exception, that the [loss of] power of coördinating the muscles of speech is directly associated with this hemiplegia. A lesion, therefore, followed by hemiplegia and ataxic aphasia, indicates the motor tract as the seat. If amnesic aphasia is also present, the hemisphere is likewise involved. An analysis of the cases reported by Ogle, Jackson, and some other observers, shows that the association existed in their cases, although they have not noticed it as of any physiological or pathological bearing.

"Another important feature of the foregoing cases is the constant association of the aphasia with right hemiplegia when there was any paralysis at all. This indicates, perhaps, only the more frequent occurrence of embolism on the left side; but the last two cases, as well as the one quoted from Dr. Stewart, show that the left hemisphere is more intimately connected with the faculty of speech than the right. In fact, it appears to me impossible to avoid this conclusion.

"So much for some of the various theories which exist relative to the localization of the organ of language, and for the clinical history of aphasia. I have not thought it necessary to discuss the view of Schroeder van der Kolk, that the faculty of articulate speech resides in the corpora olivaria, because there is little, if any, physiological or pathological evidence to sustain it. Nor the hypothesis of Brown-Séquard, that speech is a reflex phenomenon, because there is no evidence in support of that opinion. Neither have I, though much tempted, ventured into the philosophy of the subject to any considerable extent.

"As to the causes, the prognosis, diagnosis, morbid anatomy, and pathology, they have been sufficiently considered in the remarks made; and the treatment is, of course, that of the pathological condition to which

it is due, whether this be cerebral hemorrhage, embolism, thrombosis, softening, hysteria, wounds, the bites of poisonous serpents, or other causes. One point, however, should be mentioned in this connection, and that is, that constant efforts should be made to exercise the vocal organs, by attempts to speak, and by the application of the galvanic or of the faradaic current to the tongue and other muscles concerned in articulation."

Original Communications.

SIGNIFICANCE OF EXTRA-CARDIAC OR SUBCLAVIAN BELLOWS MURMUR*

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NEW YORK.

Since my previous paper upon this subject in the August (1868) number of the *New York Journal of Medicine*, I have met with a number of additional cases, and I now present all of which I have kept notes in a detailed (and also tabulated) form; by which it may be seen under what varied circumstances it may arise.

It will be unnecessary to recapitulate the peculiarities, varieties, and locations of the murmur, as they are fully given in the article above referred to (page 414, Aug. No., 1868, *N. Y. Jour. Med.*). Suffice it to say, that in none of the cases has the murmur been traceable back to the heart; that it is synchronous, or nearly so, with the heart's action, rising and falling in intensity and force with inspiration and expiration respectively, growing faint at the close of expiration, but seldom becoming inaudible, and distinctly heard while the breath is held; and that its site is generally beneath the left clavicle, over the upper lobe of the left lung, in the axillary region, and at the side of the chest. In some cases, however, I have heard it over all portions of both lungs, with the exception of that portion of the chest occupied by the heart.

When heard over the clavicle, or just below it, it is distinct, well marked, and clear, but not so strongly disposed to become faint during expiration as when heard lower down, and is often audible over a space of two or three inches in all directions, but its intensity diminishes as the ear wanders from the clavicular region. In these instances it manifestly arises from the subclavian artery. When heard lower down (the point of maximum intensity), as over the first interspace or upper portion of second costal cartilage, at about the junction of cartilage and rib, it corresponds to the left upper border of the arch of the aorta; and when heard over the second costal cartilage and second interspace, even as low as the upper portion of the third costal cartilage, it corresponds to the upper border of the pulmonary artery beneath.

Case 1.—A. B., physician, æt. 27. He was tall and well made (5 feet 8 inches, 140 pounds), but looked somewhat pale and anæmic, and was suffering from malarial toxæmia. He had suffered from typhoid fever in 1858, and from lumbago last fall, 1865. The lungs gave no evidence of actual disease on auscultation or percussion, though the respiratory murmur was somewhat feeble. The heart-sounds were in all respects normal, though the action of the heart was somewhat hurried. The pulse varied from 85 to 98 during the minute, and was easily influenced. A well-marked subclavian murmur existed, extending under the arm and over a considerable portion of the left chest, but not traceable back to the heart.

Case 2.—C. B., glass-stainer, æt. 64, 5 feet 9 inches in height; weight, 155 pounds. He was healthy in appearance, but was suffering from boils and had recently had intermittent fever. The lungs presented no evidence of disease whatever, nor did the heart; but there was present a distinct bellows murmur, best heard between the second and third ribs to the left of the mesial line, in a line with the nipple. Pulse 80 and easily influenced. He was seen again on the 9th of November, and the murmur was still audible.

Case 3.—J. H. M., bookkeeper, æt. 32. 5 feet 5¾, 123 pounds; erect, but slightly built and somewhat strumous looking; previous history not noted. Examination of his chest disclosed extensive evidences of pulmonary disease, viz: dulness on percussion, absence of respiratory murmur here and there, bronchial respiration, etc. The heart sounds were healthy. Pulse 80. A well-developed subclavian murmur was traceable from over the upper border of the arch of the aorta, upwards and outwards, over the upper portion of the left lung, and also downwards upon the side under the arm. He also had been at the South, in malarial districts during the war, but my notes do not state whether he was suffering from malarial influences at the time or not.

Case 4.—A. H., merchant. In this case the age, height, and weight were not noted. In personal appearance he was like many others, neither robust nor sickly looking. The condition of the lungs, I regret to say, was not recorded, but the heart was sound. He had a most extensive bruit de soufflle on the *right* side, audible away up under the right clavicle, and over a large portion of the right chest. His father, mother, and one sister had all died of consumption. If my memory is not at fault, there were present evidences of phthisis in his case also, but I failed to make a note of it, unfortunately.

Case 5.—S. Van R., merchant; 29 years of age; well made and muscular; active, nervous, vigorous, but overtasked in business; hue of skin bad. He looks white and pasty, with a bistre tint under the eyes. A most thorough examination of the lungs revealed no evidences of disease of any kind, as was also the case with the heart. The pulse was 76, full, even, and regular. He had a fully developed bellows murmur in the second interspace, extending outwards and downwards, not traceable back to the heart, and audible at the side of the chest below the arm-pits. There was no trace of pulmonary disease among parents, brothers, or sisters. His health had been uniformly good, with the exception of over-work at business. He also had been at the South during the war, and was tainted with malaria.

Case 6.—J. M., cigarmaker; æt. 35, 5 feet 6 inches; 115 pounds; slightly built, but not unhealthy in appearance. He is a Cuban by birth, and naturally of a sallow and bilious complexion. Auscultation and percussion revealed no abnormal condition of heart or lungs. Pulse 85, full, soft, and regular. He had a fully developed subclavian murmur at the left side of the chest, under arm, in the second, third, and fourth interspaces, and extending outwards and downwards, as in previous cases.

Case 7.—I. G. C., merchant; æt. 49; 5 feet 8 inches; 146 pounds; slender, rather feeble and imperfectly

* Various terms have been used to designate this murmur, as "Arterial murmur," "subclavian murmur," "exo-cardial bellows murmur," "pulmonary bellows murmur," etc., but they none of them are strictly correct. For instance, "*arterial*" fails to locate it. It is not always "*subclavian;*" "*exo-cardial*" has reference to another sound: and we can scarcely call it "*pulmonary,*" as it does not arise in the pulmonary tissue, but in the artery. Extra-cardiac, or a bellows murmur not implicating the heart, though near it, seems to me preferable.

nourished; breath offensive and tongue furred; evidently dyspeptic. An examination of his lungs reveals nothing evidencing an actual condition of disease, save here and there some feebleness of respiration. Heart sound; pulse 86, and excited. Extensive extra-cardiac murmur over upper lobe of left lung, not traceable back to the heart, and also heard at side of chest below the arm. Two members of his immediate family have died of phthisis acuta, and his son now has consumption.

Case 8.—W. E. S., clerk; æt. 28, 5 feet 6 inches; 120 pounds; slender, but healthy looking. Heart and lungs, on auscultation, present no evidences of disease, but he has a subclavian murmur of the left side, principally confined to the first and second interspaces. Family history and previous condition not noted.

Case 9.—I. I. H., merchant; æt. 39, 5 feet 8 inches; 130 pounds; of healthy appearance, though slightly built. Auscultation and percussion revealed prolonged expiration over the left apex, dulness on percussion over both apices, sub-crepitant râles at right apex, respiratory murmur feeble or wanting here and there, bronchial respiration, "*respiration entrecoupée*," and increased vocal fremitus. The heart's impulse was heaving and labored; there was some cardiac hypertrophy; the pulse was 110, and variable as to rate during the minute. Rhythm undisturbed. There was a well-marked subclavian murmur, heard extensively over the upper part of the left lung, and over the upper border of the arch of the aorta, but not heard anywhere over the region of the heart.

Case 10.—P. F. S., merchant, æt. 47, 5 feet 6½ inches, 126 pounds, slight in build, but of hearty appearance. Auscultation and percussion reveal no other evidence of disease than some dulness at the apex of left lung. He has a well marked subclavian murmur, audible on both sides. Family record free from taint of consumption.

Case 11.—C. B., merchant, æt. 43, 5 feet 8 inches, 125 pounds, pale and unhealthy looking. Auscultation and percussion reveal extensive evidence of phthisis; right chest sunken and distorted, wavy and interrupted respiration at both apices; bronchial respiration and dulness; expansion of chest on inspiration barely two inches. Heart sounds normal; no hypertrophy. Pulse 78. He has a well-marked bellows murmur over upper part of left chest, not traceable back to the heart, and towards the side, and also heard at side below the arm. His mother died of consumption, his father of disease of the heart, and his sister of consumption and disease of the heart combined.

Case 12.—T. V. S., merchant. Auscultation and percussion disclose no evidence of thoracic disease whatever, but he has a well-marked subclavian murmur of the left side, extending as in the other cases, but not traceable back to the heart.

Case 13.—W. L. W., merchant, æt. 50. German by birth. 5 feet 5 inches, 120 pounds; small and slight. Auscultation and percussion reveal not the least evidence of disease of the heart or lungs, but he has a very loud subclavian murmur over the 1st, 2d, and 3d ribs, from the centre of the clavicle downwards to the third rib—also heard at side of chest below the arm, not traceable back to the heart.

Case 14.—E. B., stock-broker, æt. 39, 5 feet 10 inches, healthy in appearance, active, vigorous and quick. Auscultation and percussion reveal no evidence of thoracic disease whatever; but he has the most extensive extra-cardiac murmur I have yet met with. It is heard with perfect distinctness over every part of both lungs, except in the region of the heart and over the lower lobes posteriorly. A careful examination, repeated a second time, and then confirmed by a colleague, precludes the possibility of error. The expansion of his chest on inspiration was but two inches.

Case 15.—J. B. R., merchant, æt. 34, 5 feet 11 inches in height, weight 132 pounds. He is of an unhealthy aspect, pale, sallow, and cachectic. He has prolonged expiration at the apices of both lungs, and bronchial respiration. The liver is enlarged, and his digestion much impaired. He has a loud subclavian murmur under the left clavicle. The heart sounds are natural and healthy.

Case 16.—G. B. W., clerk, æt. 27, 5 feet 8½ inches, 130 pounds. He looks unhealthy, and is somewhat feeble and exhausted. He has prolonged expiration at the apices of the lungs, etc., and a murmur, not traceable back to the heart, audible on both sides.

Case 17.—L. B. N., æt. 50. He has wavy respiration and other physical signs of phthisis. He also has hypertrophy with dilatation of the heart, and an unequal pulse. He has a well-marked subclavian murmur not traceable back to the heart.

Case 18.—F. A., gentleman, æt. 36. A fine-looking, robust, and thoroughly healthy man in all respects, but he has a well-marked subclavian murmur.

Case 19.—H. C. H., merchant, æt. 35. He is not unhealthy in appearance. He has a very singular depression of the ribs, of a hand's breadth in extent on the right side in front, said to be congenital. Pulse 74, and regular. Physical examination reveals the existence of tubercle. He has a frequent cough. Has had several attacks of inflammatory rheumatism. He has a well-marked murmur not traceable back to the heart, and audible here and there on the right side also.

Case 20.—W. C. W., banker, æt. 48. Pale and exhausted in appearance. He was obliged to go to a southern climate, and afterwards abroad for his health, some four years ago. Had pneumonia at that time, which left him with a permanent cough and night sweats. He now has all the physical signs of tubercle, and there is a well-marked subclavian murmur on the left side under the clavicle, traceable down to the 3d rib in front, and also audible at the side of the chest over the 4th, 5th, and 6th ribs.

As regards the significance of this murmur, I am inclined to think it of more importance than is generally supposed.

Dr. Richardson, of London, in an able article published in the *Med. Times and Gazette*, gives a large number of instances in which he found the murmur occurring in mechanics and artisans who are in the habit of using the arms—and notably in the case of cabinet-makers. In fact, so convinced did he become of this fact, that he sent for a number of cabinet-makers and carpenters at random, and demonstrated the existence of the murmur to the satisfaction of his class in each case. In these cases he inferred the murmur to arise from pressure of the subclavius muscle upon the artery.

It may be looked upon as settled that an arterial bellows murmur may be produced by pressure upon an artery, or by any agency which renders the arterial walls tense and unyielding, as in the foramen in the diaphragm for the aorta, in the base of the skull for the carotids, etc., and of course such action of the subclavius (if demonstrated, and the murmur be confined to the clavicular region, and there be no diseased condition to account for it) might well produce it. So also may anæmia produce it, from a too great fluidity of the blood; but in that case it is heard also in the carotids, and if thus propagated, it is unimportant. In a great majority of the instances, however, which have come under my observation, it has arisen from actual disease.

SUMMARY.

No. of Case.	Name and Occupation.	Age.	Lungs.	Heart.	Subclavian, or extra-cardiac Murmur.
1	R. F. W., Physician		No signs of phthisis detected.	Healthy; pulse feeble and variable.	Heard below left clavicle and at side of chest.
2	C. B., Glass Stainer.....	64	Perfectly healthy.	Pulse 80, excited; no adventitious sound.	Heard between second and third ribs to left of mesial line.
3	J. H. M., Bookkeeper....	32	Respiratory sounds feeble; looks strumous; chest deformed.	Bruit de souffle, pulse 80, unequal and unsteady.	Heard under left clavicle and in a line below towards outer part of chest.
4	A. H., Merchant.....		Looks consumptive; respiratory murmur feeble; father, mother, and sister died of consumption.	No evidence of disease; pulse 68.	Extensive bellows murmur on RIGHT side of chest, heard away up under right clavicle.
5	S. V. R., Merchant.....	30	Respiratory murmur healthy; no indications of disease.	No evidence of disease; pulse 76.	A bellows murmur heard in second interspace, near outer end of left clavicle.
6	J. M., Cigar Maker.....	35	Respiratory murmur feeble, chest narrow. No evidence of *existing* disease.	Healthy; pulse 85.	Murmur heard best under left clavicle, over second, third, and fourth ribs, in a line below outer end of clavicle.
7	J. J. C., Merchant.....	49	Respiration normal; two deaths from hasty consumption in family; his son now has it. Breath offensive, digestion impaired.	No decided indications of disease; pulse 86, excited.	Bruit de souffle over upper part of left lung, not traceable back to the heart.
8	W. E. S., Clerk.....	28	No adventitious sounds, save the bellows murmur.	Normal; pulse 85, regular.	Best heard under left clavicle and upper part of left lung.
9	J. P. H., Jeweller.....	37	Respiration feeble, right side. Prolonged expiration left apex, dulness at both apices; subcrepitant rales at right apex. Bronchial respiration. Increased vocal fremitus. Wavy respiration.	Heaving impulse; variable in rate; no murmur; pulse 110.	Bellows murmur under left clavicle, not traceable back to the heart; continued upwards and outwards towards side of chest.
10	P. F. S., Merchant.....	43	At apex of left lung, resonance *mât.*	Normal; pulse 85.	Well marked subclavian murmur left side.
11	C. B., Grocer.....	43	Wavy and interrupted "jerky" respiration at both apices. Right chest sunken. Expansion under two inches. Mother and sister died of consumption.	Normal.	Murmur over second, third, and fourth ribs, and also at side of chest, below axilla.
12	T. V. S., Merchant.....		Normal.	Normal.	Subclavian murmur very distinct.
13	W. L. W., Merchant.....	50	Feeble, not distinctly altered from healthy standard.	Normal; pulse 80.	Well marked subclavian murmur over first, second, and third ribs, from centre of clavicle and under arm-pit, not traceable back to the heart.
14	E. B., Merchant.....	39	Normal.	Normal.	Extra-cardiac murmur, most unusually distinct from second to sixth rib *directly below arm-pit*, not heard over the heart, also heard freely over upper part of *right* chest.
15	J. B. R., Merchant.....	34	Prolonged expiration. Bronchial respiration.	Normal.	Extra-cardiac murmur under left clavicle.
16	G. B. W., Clerk.....	27	Prolonged expiration at apices.	Healthy.	Subclavian murmurs.
17	L. B. N., Merchant.....	50	Wavy respiration.	Hypertrophy with dilatation; pulse unequal.	Marked subclavian murmur, not traceable back to the heart.
18	F. A., Gentleman.....	36	Sound in all respects.	Sound.	Marked subclavian murmur.
19	A. C. H., Merchant.....	35	All physical signs of tubercle.	Pulse 74 and regular; four attacks of acute rheumatism.	Marked extra-cardiac murmur.
20	W. C. W., Banker.....	48	All physical signs of tubercle.	Pulse 78; no evidence of cardiac disease.	Marked subclavian murmur heard over left chest.

Analyzing these cases we find that in 8 cases out of 20 the patients were unmistakably consumptive (3, 9, 11, 15, 16, 17, 19 and 20). In three others (4, 7, 10) there was strong presumptive evidence of the same. Cases 9 and 17 had both disease of the heart and consumption. Three cases (1, 2 and 5) arose from anæmia, complicated with malarial infection, and in one of them there was indirect evidence of pulmonary disease. In six cases (6, 8, 12, 13, 14, 18) no cause whatever could be assigned; but of these cases 6 and 8 were

small, slight, and not particularly healthy looking. This leaves but 4 cases out of 20 in which no cause for the murmur existed.

This does not differ very greatly from another table by Mr. Richardson, viz. It arose from

Chronic Bronchitis	in 18	cases.
Phthisis	" 12	"
Anæmia	" 10	"
Dyspepsia	" 7	"
Disease of Heart	" 3	"

He fails to say, however, in what way it was produced by the dyspepsia.

As regards the occupation of those individuals whom I saw there were

Merchants,	10	
Banker,	1	
Gentleman,	1	
Clerks,	2	
Book-keeper,	1	
Physician,	1	16 of the better class.
Glass-stainer,	1	
Cigar-maker,	1	
Jeweller,	1	
Grocer,	1	4 of the artisan or laboring class.
Total,	20	

It rarely occurs among women.

Its existence, of course, is a matter of but small importance save as a diagnostic sign of phthisis, and here I think its importance has been somewhat overlooked. Of course, without the co-existence of *some* other signs it is almost valueless, still, if there be a suspicion that tubercle is forming, its presence is a great assistance in diagnosis. I feel convinced that in certain cases where the deposition of tubercle is too slight to give rise to physical signs, by auscultation or percussion, if a portion of artery be included within the affected portion of lung, the murmur, taken in connection with emaciation and cough, may be looked upon almost as pathognomonic.

In order to avoid repetition I would again refer to my previous article in the *New York Journal of Medicine*, August 1858, in the latter part of which the *modus in quo* of its production in phthisis is fully gone into.

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REMARKS ON
BURSÆ IN FRONT OF THE WRIST AND PALM OF THE HAND;

WITH A REPORT OF CASES,

By FRANK H. HAMILTON, M.D.,

Professor of the Practice of Surgery in Bellevue Hospital Medical College.

I have selected this as a representative example from a number of enlarged bursæ or synovial sheaths of tendons which might be enumerated, because it is one of the most frequent, and at the same time one of the most troublesome of its clan. Beneath the anterior annular ligament are two distinct synovial sheaths, one of large size, embracing the tendons of the flexor sublimis and profundus, and one for the tendon of the flexor longus pollicis; the latter is also large, extending from above the wrist to near the extremity of the thumb. In like manner, the extensor tendons passing under the posterior annular ligaments have elongated synovial sheaths, of which there are six, more or less separated from each other, and which extend from above the wrist to near the insertions of the tendons. All of these synovial sheaths are subject to considerable variety, both as to their extent and connections: in some cases the septa between adjacent sheaths are lost, and in other cases sacs communicate by small openings.

It is the palmar sac or sacs which are especially prone to become enlarged, forming an oblong or a double tumor, one portion of which presents above the annular ligament, and the lower portion in the palm of the hand, or along the palmar surface of the thumb. The tumor is usually elastic, and in most cases the contents may to some extent be pushed from one portion of the tumor to the other. Pain, in consequence of the pressure, is a usual attendant, and the fingers are apt to become embarrassed in their movements, or contracted toward the palm of the hand. Suppuration has occurred spontaneously in some of the examples which have come under my notice, the final result of which has been a permanent contraction of the fingers. Small fibrinous bodies like millet-seeds are sometimes found in these and other similar synovial sacs, and also small cysts resembling hydatids. I have only once met with the latter; but, as in the bursæ patellæ, the contents are usually only a sero-mucilent fluid, sometimes stained with blood-corpuscles. The presence of the millet-seed bodies is generally indicated by a peculiar creaking sensation when the sac is pressed upon.

Treatment.—A variety of plans have been suggested and practised with more or less success by surgeons, including incision, excision, injections of iodine, acupuncture, blisters, etc. I am persuaded, however, from my own experience, that no surgical interference is ever proper, except it be to open the sac freely, whenever suppuration is imminent or has already taken place. Velpeau relates that in 1822 he saw Prof. Richerand, at the Hôpital St. Louis, open a similar tumor in a girl nineteen years old, of a strong constitution. The operation was performed with every necessary precaution, but intolerable pain and violent inflammation ensued, resulting in abscesses, and she was not out of danger until after six weeks of suffering. He adds that he has seen the operation of incision, or of passing a seton through, followed by death in several instances at Hotel-Dieu. I have seen a patient succumb to spontaneous inflammation and suppuration of the bursæ; and Mr. Tatum, in Holmes's Surgery, has reported a similar example. Pressure is in some cases serviceable, but generally it will be best to leave the case entirely to Nature, only taking care that it shall not be subjected to injury.

Case I. Catherine McGuire, servant girl, consulted me, with a small red spot in the palm of the hand, and on the eighth day after its appearance it was opened at this point by a physician. On the tenth day it was opened again above the wrist. When I saw her the second time, October 2, 1856, eleven weeks after the swelling appeared, the wounds were healed and the hand was well, except that the fingers were all slightly flexed and anchylosed.

Case 2. Mrs. C. L. Avery, Buffalo, N. Y., æt. 27. When twelve years old, she first noticed a fulness in the palm of the right hand, and when about twenty-two years of age it began to show itself above the wrist in front. When seen by me in October, 1860, the tumefaction or fulness in the palm of the hand was situated rather to the radial side, a little under the thenar eminence, covering a diameter of about one inch and a half; it was quite soft and without tenderness or discoloration. Above the wrist the tumefaction was situated in the centre between the radius and ulna; it was oblong, being one inch in length by half

an inch in breadth, the longest diameter being parallel with the axis of the limb. This portion of the bursa was much firmer than that situated in the palm, and more circumscribed. Its communication with the lower portion was easily demonstrated by steady pressure and gradual displacement of the contents from one pouch to the other. Using the hand often caused a pain which extended down to the second or large finger; sometimes this finger felt numb.

Case 3. P. H. Rhinehardt, æt. 25; shoemaker; consulted me July 5, 1856. Five years before, when recovering from an attack of small-pox, he first noticed the fulness in the palm of the left hand. When seen by me there was a broad, diffused swelling in the palm of the hand, and above the annular ligament, elastic, and without tenderness. Pressing upon the palm, what seemed to be a fluid could be pressed upwards, increasing the fulness above the wrist-joint, and its displacement was accompanied with a creaking sound or sensation. The tumefaction above the wrist was greatest on the ulnar side. On the palmar surface, opposite the last joint of the thumb and great finger, was an indentation, leading me to suspect that the synovial sheaths of the flexor tendons were involved to the points of tendinous insertion. The little fingers could only be practically flexed. He suffered considerably at times from pain in the arm and hand, especially in cold weather.

Case. 4. Matthew Fanning, laborer, about forty-five years of age, presented himself at the out-door Dispensary, Bellevue, January 14, 1867, with a swelling on the palmar aspect of the hand and fore-arm, extending upwards three and a half inches above the wrist, and downwards to about the middle of the palm, being constricted and flattened opposite the annular ligament. It was tense and elastic, and accompanied with very little pain or tenderness.

Above the wrist the swelling was the largest, covering nearly the whole breadth of the arm, and extending probably four inches upwards; the pulsations of the radial and ulnar arteries were distinct in front of the swelling. The swelling below was somewhat smaller, but equally firm and elastic.

Fanning states that the tumefaction commenced about the first of December, 1865, more than six years before he came under my notice, soon after lifting a hogshead of molasses, and that during the first few days it was very painful, especially along the course of the tendons of the ring and little fingers.

I recommended rest, and moderate pressure applied by means of a splint and roller.

March 12, 1867, it opened spontaneously above the wrist, and discharged a thin, glazy fluid, with some pus. Previous to opening it had become painful.

Subsequently I found the carpal bones diseased, and I removed them all by resection, at the Charity Hospital. Some months later he left the hospital, and I have reason to believe that he has died, probably, worn out by the long-continued irritation.

Case 5. August 5, 1855, I was consulted by Alex. Cuttle, a carpenter, æt. 23, from Chippewa, C. W. Eighteen days before, he had felt pain in the palm of the right hand. Suppuration ensued, and the pus was evacuated by an incision. During the last few days, however, nothing but a yellow-colored stringy serum or mucus had escaped. I enlarged the opening and dressed the wound with simple cerate. August 12 I found that a swelling had occurred above the annular ligament, which was fluctuating and tender. A probe could be passed from the lower to the upper cavity, under the annular ligament. I opened the upper cavity and evacuated pus with serum.

The palmar sac was about two inches in diameter, extending under the ball of the thumb somewhat, and about four lines from the surface; the sac above the wrist was not so large, and lay nearer the surface. I have never seen the patient again, and am unable to state the final result.

Case 6. July 26, 1858; consulted by Mrs. Willis, of Erie Co., N. Y., æt. 30. A swelling attended with pain and soreness commenced in the palm of the hand five weeks before, without any known cause. It soon extended above the wrist, and when seen by me it had already been opened both above and below the wrist. It was still discharging pus and serum. The fingers were contracted towards the palm of the hand. I have no farther notes of the case.

Case 7. Dr. J. L. F., of Salem, Ohio, in a letter to me, dated June 16, 1868, states that when he was twenty-three years of age, a swelling appeared on the front of his arm, above the annular ligament, containing fluid, which could be pushed through under the annular ligament apparently along the sheath of one of the tendons of the little finger. Under the advice of Drs. Ackley, Delamater, and Goldsmith, several plans of treatment were adopted, but apparently with no benefit, and at the end of a year all treatment was relinquished. After three or four years the fluid seemed to have been nearly, or quite absorbed, leaving only a slight swelling at the wrist, and a useless little finger, "the play of the tendons seeming to be destroyed."

The hand remained in this condition, apparently cured, about ten years, when the doctor sprained the wrist, and the malady was revived. At the date of his note to me, eighteen months after the sprain, he described the condition of his hand as follows:—"The malady is not renewed in connection with the little finger, but it has returned above the annular ligament; there is also now added a collection of fluid in the ball of the thumb, which can be pressed back and forth along the flexor tendons, as far as the last joint. I can discover no communication between the fluid in the wrist and that in the ball of the thumb. The fluid in the wrist does not annoy me so much as that in the thumb, the thumb being much swollen both on its dorsal and palmar aspect, and I am obliged to keep it bandaged to relieve a painful sensation of distension. I have applied blisters, bandages, iodine, etc., but it steadily grows more troublesome."

I advised the doctor not to open it, but to continue the pressure, and patiently wait the result.

In a subsequent letter, dated October 5, 1869, the doctor states that he has now discovered that the fluid may be pressed from above the wrist along the course of the flexor tendons of the thumb. The swelling on the back of the thumb has disappeared. It is seldom now that it causes any pain, the chief inconvenience being a degree of weakness in the hand, and an inability to grasp objects firmly. The treatment which has given him the most relief of the sense of tension has been cold showering and careful bandaging.

Case 8. Some years since I opened a bursa which had suppurated, situated entirely above the annular ligament, and removed a sero-muculent fluid mingled with pus, and also fifteen or twenty cysts of nearly uniform size, each being about the size of a large pea. They were ovoid in shape, translucent, and contained a thin fluid like serum. I have no further knowledge of this case.

Percutaneous Ligation.—Percutaneous ligation of arteries was first mentioned by Ledrau as early as 1720 and since described, first, by Professor Middeldorpf, of Breslau, in 1856.

CASE OF

SUCCESSFUL PRIMARY AMPUTATION AT THE HIP-JOINT.

By JEROME SANDS, M.D.,

OF PORTCHESTER, N. Y.

On December 21, 1869, Leo Vernon, aged eleven years, while "stealing a ride" on a car of the New York and New Haven Railroad at this place, accidentally lost his hold and was thrown under the car, one wheel of which passed over his left thigh, from above downward, and from without inward, crushing the bone from near the great trochanter to the junction of the upper with the middle third, and lacerating the soft parts from the acetabulum in front nearly to the knee, and dividing the femoral artery. Restoratives and stimulants were administered, and the patient conveyed to his home, half a mile distant.

After a careful examination of the injury it was decided to amputate at the hip-joint. An anæsthetic was now administered, and I proceeded to operate in the following manner, assisted by Drs. H. Rockwell and N. J. Sands: First, the soft parts in the upper and anterior part of the wound were carefully pared down to the acetabulum, and the head of the bone exarticulated; the femoral artery was next ligated, and a large flap formed from the inner and posterior part of the thigh. Seven arteries in all required the ligature. The flap was now adjusted to its place, and the lips of the wound retained in apposition by sutures and adhesive straps. The operation required but little time, and was attended with slight loss of blood. The patient rallied well from the shock, and went on in every respect to a favorable recovery, a portion of the wound healing by first intention.

At the present writing, one year after the operation, the patient is going about on crutches, and in the enjoyment of perfect health; so that the case may be fairly recorded as one of the successful primary amputations at the hip-joint.

Progress of Medical Science.

Diastase in Dyspepsia.—In Nos. 25 and 27 of the *Gazette Hebdomadaire* for 1870, Dr. Gontaret recommends, in that form of dyspepsia in which there is difficulty in the digestion of starchy articles of food, the use of the nitrogenous substance developed in buds and grains during their germination, and known as *diastase* or *maltine*. This substance, as is generally known, induces in hydrated starch the process of catalysis, by which it is converted into dextrine and glucose—the forms which all starch and sugar must assume before they are fitted for nutrition. The organic matter contained in the mixed saliva, and the fluids of the small intestine, are, in health, sufficient to establish this process; but, in a condition of the alimentary tract characterized by alteration or deficiency of saliva or intestinal juices, this substance promises to do for starch and sugar in intestinal digestion what pepsine does for the albuminoid articles of food. He employs the remedy in doses of 2 to 6 grains after each meal, and says that it never acts prejudicially on the digestive organs.

Atrophy of the Gastric Tubules.—In connection with the above, it is of interest to note the opinion expressed by Professor Austin Flint, in the January number of *The American Practitioner*, with reference to disease of the gastric tubules. In commenting upon a case of this nature, reported by Dr. Fenwick in the *London Lancet* of July last, he says that he thinks it may yet be determined that the causative lesions of the disease known as "idiopathic anæmia," embracing such cases as exhibit the bronze discoloration of the skin as described by Addison, are degenerative disease, or atrophy, of the *gastric tubules*.

Transfixion of Chest and Lung, with Recovery.—In *The Lancet* of January 21st ultimo is an interesting case reported by Professor Longmore. The patient (a private in a regiment of lancers) was accidentally transfixed with his own lance, which entered his chest in front, between the fifth and sixth ribs, and an inch to the inner or sternal side of a vertical line through the right nipple, and, passing backwards and a little upwards, came out through the scapula below its spine, and about an inch and a quarter from its vertebral margin. Although the removal of the lance was accomplished with difficulty on account of the fracture of its shaft, and the bending of its iron head, there was not much hemorrhage, and he made an excellent recovery, and at the time his case was reported only complained of pain when lifting any weight above his head. No stethoscopic traces of injury to the lung remained, excepting a loss of respiratory murmur over a limited space near the wound of entrance. The general expansion of the right side of the chest on inspiration was equal to that of the left side. Some of the movements of the right shoulder were a little restrained owing to adhesions about the scapula, but not to such an extent as would have prevented the man's fitness for duty as a lancer.

Carbolic Acid in Carbuncle.—Dr. J. C. Nott, of New York (*New York Medical Journal*), advocates the local use of carbolic acid in carbuncle, and publishes an obstinate case which was promptly cured after seven applications. He believes this so-called acid to be more penetrating in its action, more efficient as an antiseptic, than subsulphate of iron, advocated by Dr. Blake of this city, in the treatment of fibrous tumors of the uterus.

Management of Hemorrhoids.—Dr. John H. Packard, Surgeon to the Episcopal Hospital, Philadelphia (*N. Y. Med. Journal*), says that one principle should govern us in all the palliative measures adopted in any case of piles: namely, to prevent straining. And this may be carried out in various ways. Besides the adoption of a proper diet-table, embracing simple but nutritious food, well cooked and not highly seasoned, there are four points to be attended to. By means of medicine we keep the bowels easily moved; ʒ ss. or so of sulphur, mixed with cream or molasses, every morning before breakfast, will do this; or, by very small doses of Epsom-salts, by Vichy, Congress, or Bedford water, we may accomplish the same end. The second measure is mechanical: the patient is instructed to have made a board, with an opening about five inches wide by fourteen long, to place over the ordinary privy-seat, which allows the nates to bulge down too much; this will in a great degree prevent the protrusion of the relaxed rectum. The third is the use of astringent suppositories, to be used after each stool. He has found the perchloride of iron—gr. j.. ij., or iij., made up with cacao butter—to answer best, unless the piles are inflamed, when acetate of lead is more soothing. The fourth element of the treatment is the employment of a hemispherical block of ivory or vulcanized rubber, about as large as half a billiard-ball, attached to a spring of properly-adjusted strength, and this again fastened

to a belt. When in place, this supports the parts, and in cases of great relaxation prevents their descent in walking; the comfort thus afforded is very great.

On the Nature and Causes of Hysterical Phenomena.—The Italian *Gazetta Medica* gives the following *résumé* of Dr. Chairoud's observations on the relation of diseases of the ovary to hysteria. 1. Where compression or inflammation of one ovary or of both exists, paralysis of the reflex movements of the epiglottis and of the pharynx constantly occurs. 2. The combination of these two groups of symptoms in one individual may be designated the hysterical cachexia. 3. The hysterical paroxysm is only the consequence of the reflex paralysis. The suffocating attack is occasioned by the paralyzed epiglottis narrowing the orifice of the larynx, and then there follow the convulsive movements of the extremities and the muscular spasms that collectively constitute the hysterical crisis. 4. The asphyxia proceeding from the frequent recurrence of these symptoms gradually leads to a change of the whole physical nature of the patient. From hence result the various sensorial disturbances and the anæsthetic conditions that are exhibited by almost all hysterical patients. The treatment of hysteria should, if these views are correct, be directed to functional disturbances of the ovaries, and is in consequence purely local with a view of subduing the oophoritis, as the primary, if not the only cause of hysteria. (*Gazetta Med. Ital. Lombard.*, No. 8, 1870, and *The Practitioner*, Jan 7.)

Apium Graveolens in Amenorrhœa.—Prof. Pietro Gamberini, Surgeon-in-Chief of the Hospital of St. Oriola, writes in the *Bulletin of Medical Sciences* of Bologna, of November, 1870, that he has found that the essential oil of *Apium graveolens* (garden celery) contains highly emmenagogic properties; he finds it to answer very well in some cases of obstinate *amenorrhœa*, where all other remedies in common use have failed. He gives it in doses of twenty to thirty drops, two or three times daily.

Wounds of Stomach. Recovery.—In the same number of the *Bulletin*, Dr. Alphonso Borbieri, Surgeon to the *Ospedale Maggiore* of Bologna, reports two cases of wounds, one of the diaphragm and stomach, the other of the stomach only. The first patient was a young man, twenty-two years of age, and of delicate constitution. The wound penetrated between the ninth and tenth ribs of the left side, in the median line, descending through the cavity and perforating the diaphragm and stomach. The second patient was a man of sixty years, and of robust constitution. In his case, the wound penetrated below the left costal arch, directly into the stomach. In the first case, the hemorrhage was internal, a large amount of blood being vomited. In the second, the hemorrhage was from the external wound, and more profuse than in the first. The wounds of the skin were each about one and a half inches in length, and were in both cases closed with adhesive plaster, and the abdomen covered with cloths wet with cold water. In both cases about four ounces of blood were taken by venesection on the third day in consequence of the degree of inflammation. On the fourth day convalescence commenced, and it progressed without accident in both cases, the first being discharged cured on the seventeenth day, and the second likewise, on the twentieth day.

Management of the Perineum during Labor.—Dr. Wm. Goodell, Clinical Lecturer in the University of Pennsylvania (*Am. Jour. of Med. Sciences*), believes that although the vast majority of natural labors require no assistance whatever to insure a safe delivery, provided the woman has escaped frequent touching, yet cases do undoubtedly arise which demand intelligent assistance, nor can the line of demarcation be drawn between natural and morbid cases. The prudery of obstetric teachers has, he is sure, been the cause of many undiscovered, and consequently uncured lacerations. But why should a false delicacy interfere with the freedom of manipulation at a time when a woman's future health and happiness lie at stake, especially since her organs are then no longer *sexual*, in the common acceptation of the word, but *parturient*?

Whenever, therefore, it seems proper to aid nature, insert one or two fingers of the left hand into the rectum, the woman lying on her left side, with her knees well drawn up and separated by a pillow, and hook up and pull forward the sphincter ani towards the pubes. The thumb of the same hand is then to be placed upon the fœtal head, scrupulously avoiding all contact with the fourchette. The right hand need not remain idle; it assists the thumb in making the head hug the pubes, or in retarding its advance; after a pain it presses back the head from the perineum, and thus represses reflex uterine action; it restrains the movements of the woman; it pushes up the corrugated scalp, so that no folds shall remain beneath the sharp edge of the perineum to increase the circumference of the child's head; finally, it supports the emerging head and body, causing them to describe the curve of Carus.

Pigment Induration of the Lungs.—Dr. Francis Delafield, Curator of Bellevue Hospital, N. Y. (*Am. Journ. Med. Sciences*), describes a lesion of the lungs caused by heart disease, which has attracted but little attention, and yet is both of frequent occurrence and of considerable importance. The first detailed description of this lesion was given by Virchow, in 1847. The works which serve as text-books for most students, either do not mention this affection at all, or advert to it as a rare disease not to be diagnosticated. His observations are based on a study of twenty autopsies of this disease. The lesion is not an uncommon one. During a period of twenty months there were made, at Bellevue Hospital, sixty autopsies in which there were marked lesions of the heart. In twenty of these cases, one-third of the number, pigment induration of the lungs was found.

When the lungs are cut open, the color and texture are very characteristic. The texture is dense and resistant, like that of compressed lung. It is very dry, contains very little air, hardly any blood or serum escapes. In some cases the lung tissue is œdematous but not congested. The color is very marked, uniform, bright pink. This pink may be mottled with spots of brown or black in a very variable degree. The increase of pigment on which Virchow insists, although present in nearly all the cases, was very seldom of sufficient amount to attract attention with the naked eye.

Mitral stenosis is almost always accompanied by pigment induration of the lungs; simple mitral insufficiency causes it in nearly half the cases; aortic disease with mitral insufficiency causes it in one-fourth of the cases. All the symptoms which indicate an obstruction to the passage of blood from the lungs into the left auricle, point in some measure to this disease. The existence of dyspnœa, cough with mucous expectoration and hæmoptysis, without any evidence of emphysema, are also evidences of pigment induration.

There is a general loss of resonance over both lungs; the respiratory murmur is feeble; there are coarse and subcrepitant râles varying in amount from day to day.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE PROPER CARE OF FOUNDLINGS.

THE proper raising of abandoned children, and their subsequent education, are subjects of such interest to the physician as well as the political economist and moralist, that they cannot be too often brought to the notice of the public at large. Prof. A. Jacobi, of this city, during a recent visit to Europe has, as the result of much painstaking, succeeded in presenting, in a pamphlet* lately published, some very interesting points bearing upon the question at issue. An excellent opportunity is thus offered us to present an old subject in a comparatively new light. The report to which we have alluded is mostly statistical in character, and, except for the facts that it intends to substantiate, is rather dry reading. We shall spare our readers the mathematical detail of the arguments, and be content to state the conclusions.

Firstly, It is proven that the mortality of infants is very large previous to the sixth year, and that after this there seems to be greater power to resist morbific agencies. Upon this point of fact turns the principal argument of the paper, viz., that large institutions are the worst places for foundlings. The death-rate of these little ones, large in any event, is so greatly increased by their residence in such hospitals, that Dr. Jacobi is forced to use very strong language:—

"The worst figures of the European foundling hells of former centuries are not more fearful than ours; and although being an officer of that institution myself, and believing that I and all the rest of us have conscientiously tried to do our duties, I cannot but testify and bow down to the truth, that in spite of all the efforts of the medical staff, and the painstakings of kind-hearted and self-sacrificing ladies, the probability of the lives of children entrusted to a public institution is very slim indeed. The younger the children, and the larger the institution—the surer is death Every story added to an edifice which is meant to be a temple of love, is an additional hecatomb of the innocents. Modern civilization, planning for the best, but mistaken about the means, has succeeded in out-herod-ing Herod."

The causes of this state of things may be summed up under several heads. First, the increased rate of mortality of children at an age when their admission to an institution is granted. To this we have already referred. Secondly, the inevitable admixture of the odor of urine and of fæces in the atmospheres of wards in which children are collected, acts most unfavorably against health. "From this source," says Dr. Jacobi, "originate the numerous cases of poor sanguification and of constitutional diseases, such as rickets, scrofula, even typhoid fever and scurvy; from this source, also, is part of the really immense mortality of Foundling Hospitals." Thirdly, the food and care become very weighty matters for consideration. Bottle-fed infants do not thrive as those who are nursed; but the former will live and do well in a private family, while in a hospital they will die. Throwing out of consideration the difficulty of getting the milk pure and of sufficient quantity; the particular attention which the infants must receive from the nurses is of such importance, and, practically speaking, so far short of what it should be, that "the receiving of a baby in the purely bottle-fed department is acknowledged by all of us as amounting to a sentence of slow death." Farther on, remarking upon the same topic, he says:—

"This cause of early death cannot be greatly influenced by the mode of raising the infant, either in asylums or by farming-out. There are some parts of maternal care that cannot possibly be substituted by anything in the power of society. . . . . A task that requires all the holy instincts, the self-immolating restless care of maternal love, left in the hands of corrupt, lazy, whimsical, or malicious women, who make it their business to neglect their business, and are womanly and motherly only as far as their anatomy classes them. It is much more probable that the poorest countrywoman who takes charge of a society's child, under the superintendence of the proper authority, under the eyes of her neighbors, and with motherly feelings developed in the poorest one bound in marriage and family ties, will succeed in saving a nursling from certain death."

The latter clause suggests the prevention of the mortality in not only having wet-nurses in suitable numbers, but that these nurses should live in the country; that the farming-out system, so prevalent in Europe, is the only one which promises the good results. Dr. Jacobi has conscientiously investigated this subject, and has arrived at these conclusions after a careful study of statistics furnished by the large Foundling institutions throughout Europe. Facts show how necessary it is, in view of the large mortality in our representative Foundling establishment, that our nurslings should be farmed out. No better application of the old saw, "killing with kindness," can be made than in the case of the little ones cared for in our metropolitan institutions. With a large-hearted charity the Commissioners of Charity and the managers of the Nursery and Child's Hospital respectively have spen

* The Raising and Education of Abandoned Children in Europe, with Statistics and General Remarks on the Subject. A report read before the Infants' Hospital, Randall's Island, N.Y., by A. Jacobi, M.D., etc. New York. 1870.

large sums of money to accomplish an object which, by the system which they adopt, can never be attained. The beautiful buildings that have been reared, and may still be erected, make a praiseworthy show, and give evidence to such as do not look farther, that the funds, the appropriations, the subscription money are expended to some purpose. But what does this amount to when, as experience and statistics show, these same handsome buildings are the worst possible habitations for society's dearest trusts, the little castaways? It requires a considerable amount of moral courage, a thorough conviction of being in the right, for the managers of any of these nurseries to expend the moneys entrusted to them in a manner that will make no better exhibit than the saving of extra lives. But if they discharge their trusts intelligently and properly, it must in justice come to this. The real want is in a complete system of farming-out, and not any extra or enlarged buildings. Let the nurslings have the best chances in the power of science and humanity to give until the period of greatest risk to life is passed, and then if buildings must be erected, let them be converted, as in Europe, into mere local agencies to supply fresh breast-milk from women residing in the country.

The facilities for supplying homes in the rural districts for infants are not the same throughout Europe; but in the main, it is surprising to note what a large number are provided for in spite of many difficulties. The supply is generally equal to the demand in all localities where the farming-out system is carried out to a greater or less degree of perfection. In our own country there are some obstacles to surmount which, from the peculiarities of our institutions, etc., do not exist abroad; but these, when viewed intelligently and resolutely met, can be reduced to a minimum. In this connection we take occasion to quote again from the pamphlet before us:—

"With us, the difficulties may be of still another nature. Our population adjoining the large cities, especially New York, is not so large as in Europe, and —is not so poor. It is not so much of a vital importance for a country family to avail themselves of the trifling subsidy paid for the infant boarder. But, there are some considerations which are to be taken into account. The first is, that the infants we have to care for do not count by six or ten thousands every year; and the second, that the sum which is at present spent for every infant under the charge of the Commissioners of Charities is by no means a trifle. It would be found, on trying, that the apparent difficulties in procuring proper country homes for our infants would by no means be so great as they may appear at first sight. Even if there were some in the beginning, we should always gain. If, in the first year, we could not do better than board out those that are bottle-fed, at present, in our wards of Randall's Island, we should protect and save a large percentage of lives that are now lost."

We have refrained from quoting the figures which are used to substantiate the facts, for reasons already stated; but to those who have doubts upon the subject, or who are prejudiced in favor of the present system, we commend a careful perusal of the pamphlet. It is a matter in which every physician should be interested, and one in which he should use his influence for good, irrespective of individuals or parties.

There are other points connected with the general subject equally interesting and deserving of ventilation, which we shall leave for a future time.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Dec. 28, 1870.

DR. J. C. HUTCHINSON, PRESIDENT, in the Chair.

CONGESTION OF THE CEREBELLUM.

DR. FINNELL exhibited a cerebellum removed from a person who died a few days ago. At the time of removal the cerebellum showed intense congestion of all the vessels. The patient was a cabinet-maker, aged thirty years. He was first seized with a violent pain in the back of the head, but worked all day and consulted a physician in the evening. Cathartics were given, and acted freely. The patient worked all the next day, but suffered terribly from the pain in the back of the head. Opium was given that night, and bromide of potassium the following night, the man working all day. He worked also on the fourth day, but was too ill that night to call on his physician, who was accordingly sent for. The tongue was heavily coated, and the pulse eighty, and the physician thought there was very little the matter with him. Fifteen minutes after the doctor left him the man fell over and died. The autopsy revealed intense congestion of the cerebellum in all its parts, with much effusion in both lateral ventricles, there being about four ounces of fluid in each. Death was caused by sudden effusion into the cavities of the brain. Dr. Finnell remembered only one other case of the kind. The man was ill only six days, and except the pain in the head, was seemingly in the best of health.

GUNSHOT WOUND OF SPINE.

The second specimen exhibited by Dr. Finnell was a portion of the spinal cord taken from the body of a famous politician, who was shot in the spine seven months before his death. The ball could be plainly seen in the specimen. The man weighed 260 pounds at the time of the injury, and before his death he weighed very little over 100 pounds. The autopsy showed urinary calculi in the pelvis of both kidneys. These calculi had caused cystitis, which had been attributed to the injury. The patient suffered the whole time from obstinate constipation.

DR. JACOBI remarked in regard to the congested cerebellum that the central portions were very much softer than the outer portions, which would show the process to have been of longer duration than was supposed. The pons was also much softer than the other portions of the cerebellum, showing that there had been encephalitis of some years' standing. The fact that the large ventricles had been changed to such an extent showed the effusion to be not very recent.

DR. FINNELL thought it remarkable that the man should have continued work until the day of his death.

DR. JACOBI said that such cases often dropped down suddenly.

PHIMOSIS CAUSING CHOREA.

Dr. Chas. A. Hart exhibited a portion of prepuce removed by circumcision in a case of congenital phimosis causing chorea minor. The operation was performed on Monday last. The chorea was relieved.

Dr. Sands said the effect of such an operation could not be told at once. Last year he had removed a large fibrous tumor from the axilla, with the effect of relieving for several weeks an intense neuralgia. But the pain subsequently returned, and the patient left the hospital very little better than he entered it.

Dr. Hart promised to show the patient to the Society after a time.

FIBRO-SEROUS CYST OF JAW.

Dr. Sayre exhibited a fibro-serous cyst, removed from the inner angle of the left jaw of a gentleman aged 35. The tumor had been six years in growth, but had grown very slowly until last year; since then it had grown rapidly. (Two photographs of the case were exhibited, and the patient himself was also present.) Dr. Hamilton had seen the case in consultation, and had advised incision, on account of the depth of the tumor and the adhesions. Dr. Sayre decided, however, to perform excision, if possible. The adhesions were found more firm than had been anticipated, and there was some difficulty in dissecting the sac out. The jugular vein was exposed for 1¼ inch, but not injured. The fluid oozed out of the sac during the operation, but it was again rendered tense by a silk ligature passed round it, and at last came out entire. No vessels were wounded, so no ligatures were required. The operation was performed last Sunday week. The incision was made parallel to the fibres of the sterno-cleido-mastoid muscle. Excision in this case proved better than incision.

UNDEVELOPED EYE TOOTH.

The second specimen exhibited by Dr. Sayre was a portion of an upper jaw containing an undeveloped eye-tooth. The specimen had the following history: Nine years ago a woman had presented herself with supposed cancer of the upper jaw. There was a tense shining swelling and apparent epulis of the upper jaw-bone. It was thought advisable to make exsection of the jaw. The tumor broke and blood escaped. There was considerable sloughing and more or less pain. The patient was discharged. A week ago she presented herself with a portion of the jaw still left. This was removed with a pair of forceps, and with it a large eye-tooth which had not been developed, and which was probably the source of all the irritation.

REPARATION OF BONE.

Dr. Sayre also exhibited another specimen of remarkable interest, which he said was probably the largest specimen of reparation of bone ever presented. A year and a half ago he had presented a specimen of bone exsected subperiosteally on account of morbus coxarius. The disease was of eight years' standing, and the patient was twenty-seven years of age. All the femur above the trochanter minor was removed, and also the acetabulum.

A few days ago the patient died of waxy liver, and a post-mortem showed that the trochanter major had been reproduced and was of the normal size. The neck had been reproduced and was nearly half an inch longer than the normal neck; there was a tolerably globular head, covered with cartilage and synovial membrane. The acetabulum was also reformed higher than the normal one, and also covered with cartilage. Some small spicula of diseased bone had been left, and there was consequently a sinus from which pus was constantly discharged.

Dr. Jacobi said, in regard to Dr. Sayre's first specimen—the tumor of the neck—that a majority of cystic tumors in the neck were the result of arrest of fœtal developments. Three or four ducts not closing, may remain dormant and develop in after life. He wished to know whether almost all of these tumors were not the result of arrested development?

Dr. Sayre said this case might have existed from birth, but would probably have been discovered earlier.

In regard to the last specimen presented by Dr. Sayre, of repair of bone, Dr. Sands inquired whether any examination had been made of what was supposed to be cartilage? It seemed like spongy connective tissue. If true cartilage had been reproduced it would be a very interesting fact.

The specimen not having been examined microscopically, was referred to the Microscopic Committee for their opinion.

Dr. Jacobi said that twenty years ago he had seen eight inches of the tibia reformed. It was thick and useful.

REMOVAL OF HEAD OF FEMUR.

Dr. Sands related a case in which the head of the femur had been removed two months ago. The patient was a boy nine years old. He was healthy up to a year ago. It was said by his parents, who were both healthy, that he had a robust constitution. A year ago last October, while in Europe, he fell ill with acute rheumatism, most marked in the lower extremities, affecting both hips, knees, and ankles. The boy recovered, and remained well until the spring of the present year, when he became ill with the same disease, which was then observed to be more intense in the left hip-joint. The rheumatic swellings disappeared, but he only partially recovered. Suspicions of hip-disease were entertained, and he was treated by extension with weight and pulley, and subsequently with plaster of Paris bandage. Abscess was feared, but not detected prior to his return to New York. Dr. Sands saw him in July, just after his arrival from Europe, and as he seemed comfortable in the firm casing he allowed the apparatus to remain until the 1st of October, when he found him apparently about the same, and hoped the local disease was arrested, but was disappointed on removing the apparatus to find that the limb shortened at once an inch and a half, and the foot became extremely everted. A very large abscess extended down the sides and front of the thigh, nearly to the capsular ligament of the knee-joint. The boy was examined under ether, and the head of the bone was found resting upon the dorsum of the ilium, and there was a large abscess, but no acetabular disease. On the 20th of October Dr. Sands opened the abscess, making excision of the hip-joint simultaneously, and was rather surprised to find so much of the head of the bone remaining. It had not suffered much diminution, but there was complete absorption of a portion of the rim of the acetabulum, and also some carious disease of the acetabulum, of which a thin slice was removed at another section, and the acetabular cavity thoroughly scraped. Extension apparatus was applied, with a three-pound weight at the foot. The patient had a hard time after the operation, but had recently borne pressure very well.

Dr. Sayre inquired whether the capsular ligament was ruptured.

Dr. Sands thought it was. The case, he said, had three points of interest; one was, that morbus coxarius

followed acute rheumatism; another was, that dislocation was demonstrated at the time of the operation; and the third point was, the treatment pursued of putting the limb in an immovable dressing of plaster of Paris, which, while it gains rest, also obstructs the view, and gives a chance for suppuration. From what he had seen of the operation in hip-disease, he was more and more in doubt as to the time when it should be done. As in croup, those who operate rarely lose all their patients. If we could tell which would be the bad cases, the earlier the operation the better. In the case just described, if the operation had been performed before there was any abscess, the chances of recovery would have been increased.

Dr. Sayre thought the hip could not be examined properly in the plaster casing. It might have been ascertained whether the bone was diseased. Crepitus might have been detected.

Dr. Sands said that was not an accepted axiom in surgical practice. In regard to the statistics of the operation, there were no doubt a great many surgical operations performed and not reported.

WAXY DEGENERATION AS SEQUEL TO SURGICAL OPERATION.

Dr. Loomis called attention to the fact, that a great many of the patients operated upon died of medical disease. Degeneration was very likely to occur in connection with diseased bones, especially when pus was retained for any length of time. He was of opinion that the operation should be resorted to as early as possible, to relieve the system of accumulations which might cause waxy degeneration.

Dr. Sands remarked, that patients have waxy changes after the operations, and not before. Waxy changes in the liver were not easily recognized, and would contraindicate operation. The danger was rather from a long-continued drain upon the system.

Dr. Sayre said that was exactly the point—long-continued suppuration. Patients died from waxy liver when they were not operated upon at all. By early operation and thorough exsection of bone the period of suppuration was shortened, and the danger of death materially lessened.

Dr. Chas. A. Hart questioned whether it was always possible to distinguish between healthy and diseased bone at the time of operating.

Dr. Jacobi believed that waxy degeneration was not so much the result of drainage. Where there was much drainage there would be hydræmia, in such patients as lose pus from large abscesses, for instance. Generally in bone abscess we saw anæmia and anasarca. When we had to deal with bone abscess, whether an operation has been performed or not, there we were apt to see waxy degeneration. It is almost an axiom that caries of the bone is the principal cause of waxy degeneration, though I believe it makes no difference whether an operation has been performed or not. As to early or late operation, he had seen that children operated upon very early did not stand the operation very well. At a later period they stand the operation better, and revive immediately afterwards. Therefore he believed all the views correct, and that every case had to be treated independently. Rules could not be laid down that would be good for every case.

Dr. Erskine Mason presented the bladder and kidneys taken from a man aged about 50, who died in Charity Hospital. The patient was in a comatose state when he reached the hospital, and died eight hours after admission. Shortly before death the house-surgeon introduced a catheter and drew off some bloody urine, which was strongly ammoniacal. No difficulty was encountered in passing the catheter, though blood flowed freely through the instrument and passed from the urethra after withdrawal of the catheter. The autopsy, made 36 hours after death, revealed no disease of the organs except the heart, pericardium, kidneys, and bladder. The pericardium was greatly distended with serum, and its surfaces covered with recent lymph. The aorta, together with its valves, was the seat of atheroma. The bladder was hypertrophied, and contained several polypi, which were bloody and of a fungous appearance. The largest of these arose from the posterior surface of the bladder by a thin pedicle, the body of which was fimbriated and measured two inches in its longest diameter. On the right side, just above the neck, was another polypus, the size of the thumb-nail, springing from a very slender pedicle. Directly below this one, and passing across the neck of the organ, were two distinct bands, and from the left side of the upper band hung another polypus, which dropped down into the neck of the bladder, which, together with a smaller growth from the lower band, must have acted as a barrier to the flow of urine. Several smaller excrescences were situated in the same region. The left kidney was very much enlarged and waxy, and its pelvis and calyces greatly distended. The right kidney was exceedingly small and lobulated, as in the fœtus, with its pelvis distended with urine to the amount of nearly three ounces. Both ureters were enlarged, and the right distended with urine, while no communication could be found between it and the bladder. The prostate gland was not enlarged.

The President inquired whether the kidneys were distended with fluid?

Dr. Mason said that both ureters were very much distended, and that the right one had no connection with the bladder.

Dr. Jacobi remarked that only the pelvis of one kidney remaining, there had probably been fœtal obstruction of the artery. The other kidney appeared waxy.

The Society then went into executive session.

Stated Meeting, January 11, 1871.

Dr. Jos. C. Hutchison, President, in the Chair.

WOUND OF FEMORAL ARTERY.

Dr. Finnell exhibited a partially divided femoral artery, the result of a stab, and also a liver removed from the same individual. In the substance of the latter organ was imbedded what appeared to be a needle, its point projecting downwards about the eighth of an inch. As there seemed to be some doubt as to the true character of this foreign substance, in the minds of the gentlemen present at the autopsy, the specimen was referred to the microscopical committee.

VESICAL CALCULI—THE EFFECTS OF THE OPIUM HABIT ON THE HEALING PROCESS AND ON ANÆSTHESIA.

Dr. Keyes presented several large calculi removed from the bladder of a German aged forty-two. He saw the patient for the first time last spring. At that time he had been suffering more or less for fifteen years with symptoms of stone. He never had his bladder searched, and had no idea of the nature of his complaint. Early in his troubles he had given him something to quiet his pains, and as this was all that had been done for him by several different physicians, and as he learned that the medicine advised was opium, he became impressed with the idea that he could use the drug on his own account. He soon commenced to increase the dose, so that at the end of a number of years afterwards he would take seventy grains of solid opium and an ounce

or so of laudanum during the twenty-four hours. When he came to Dr. K.'s office he had taken three ounces of laudanum and a great quantity of whiskey to brace himself for the journey. On examining his urine it was found of the sp. gr. .1002, contained a little blood, scarcely any pus, a few leucocytes, but no casts. He was sent home, and Dr. K. saw him the same afternoon, introduced a searcher, and at once, along a line of two inches, detected stones in the bladder. The lateral operation was advised and performed accordingly, and the stones exhibited were removed. For two weeks the patient was kept on an average dose of thirty-five grains opium, but the healthy granulations failing to appear the amount was rapidly increased to seventy grains, when the healing process at once took a start, and the wound soon closed. He was soon after completely cured, but he afterwards became a complete sot, and was, in all probability, at the time of reporting the case, in his grave.

Several points presented themselves for consideration in connection with this case. I. Could the opium account for the low specific gravity of the urine kept up during the whole of the time he was under observation? II. Did the opium prevent cystitis by allaying irritation, for certain it was he had no cystitis after he recovered from the operation? III. Another fact was the small quantity of ether, an ounce and a half, necessary to produce anæsthesia. The question was, how much his previous habits of taking opium and whiskey had to do with this effect. Having experienced great difficulty in inducing anæsthesia on some Cubans, who were great smokers, he thought it might be necessary to use a large quantity of ether in the present case, but was astonished to find the opposite state of things. He took the ether without a struggle, had no nausea, nor any other bad symptom.

Dr. Janeway suggested that the low specific gravity did not have much importance if it was not compared with the whole amount of urine passed in the twenty-four hours.

Dr. Jacobi remarked that there were two elements in the case to explain the low specific gravity—first, the whiskey drinking, and second, the opium habit. The former, by taking the place of solid food; the latter, by retarding the natural metamorphosis of tissue.

Dr. Hutchinson thought that the readiness with which anæsthesia was produced was due to the opium which the patient had been in the habit of taking. He was in the habit of administering opium previous to an operation for that purpose. He did not use chloroform as an anæsthetic.

Dr. Finnell stated that, in his experience, persons addicted to intemperance and to opium were more susceptible to anæsthesia than others.

Dr. Keyes' experience was to the contrary, especially so in regard to smokers.

Dr. Briddon.—I present one of Holt's self-retaining catheters; it will be found incrusted with urinary salts, which were deposited during a three-weeks' sojourn in the human bladder, and with specimen I will give the following history:—

Two months ago my friend, Dr. Stephen L. Clark, was called in consultation by a neighboring practitioner to a bad case of retention of six or seven days' standing, and the result of the consultation was that I was requested to relieve the man's bladder. I found him a man of about 30 years, in the following condition: His bladder was distended to a level with the umbilicus, and he had stillicidium from overflow; the whole perineal region was distended by a very large urinary abscess, which I relieved by a free incision, reaching from the scrotum to the verge of the anus. I thought that some urine escaped from this opening, and I left with the expectation that his bladder would be relieved in that direction; but I was disappointed, and in the following morning was informed that he was still unrelieved, and found him with his bladder still distended and overflowing. Whilst under the influence of chloroform I endeavored, by aid of every conceivable form of guide and bougie, to enter his bladder, and desisted only after about an hour's faithful and fruitless attempt to do so. I then had him placed in the usual position, and performed the operation of urethrotomy without a guide, and the greatest difficulty I encountered in that procedure was in securing the artery of the bulb, which I severed in dividing the stricture; in that, however, I at last succeeded, and introduced a full-sized silver catheter, which I secured "in situ." I had reason to believe that the gentleman in charge of the case was not familiar with manipulations about the urethra, and determined rather to adopt the obsolete method of leaving an instrument in the bladder than risk the future patency of the canal.

I saw no more of the patient after this, but some days after I asked Dr. Clark to see the physician in charge and suggest to him the propriety of substituting one of Holt's self-retaining catheters for the metal one, and of further advising the daily injection of the bladder with water acidulated with nitric acid. Dr. Clark was kind enough to introduce the flexible instrument himself, and saw no more of the patient for a period of three weeks, during which time he was attended by his original adviser, and during the whole of which time he wore the tube without injection or other treatment. Dr. C. had considerable trouble in removing the catheter, which was densely incrusted with urinary concretion. He said it was truly wonderful what a strain it bore in removal without giving way. The man now passes a No. 12 sound readily, and has but a slight escape from the perineum, which is rapidly closing.

I do not wish the members of the Society to suppose that I advocate the retaining of a metal catheter in the urethra after the operation of urethrotomy as good practice; the plan was adopted in this case for obvious reasons.

TUBULAR NEPHRITIS AS THE ONLY SYMPTOM OF SCARLATINA.

Dr. Lewis Smith presented a specimen of urine showing tubular nephritis, passed by a girl ten years of age, who, after a thorough exposure to the contagion of scarlet fever, showed dropsy as the only symptom of the disease. He referred to a somewhat similar case that occurred to him two years ago.

INVAGINATION OF ILEUM.

He also exhibited an invagination of the ileum four inches above the ileo-cæcal valve, removed from a child that died at the ago of four months in the Nursery and Child's Hospital. The patient was not known to be sick until a few hours before its death, when it was seized with convulsive attacks, and yet, notwithstanding this fact, the distinctly congested appearance of the invaginated portion proved that the lesion must have existed a considerable length of time.

PURPURA HEMORRHAGICA, TRACHEITIS, LARYNGITIS, AND BRONCHITIS.

Dr. Loomis exhibited the larynx and trachea of a man aged forty, who was admitted into Bellevue Hospital December 27, and died twenty-four hours afterwards. Three or four months before, he noticed that he was losing flesh, and being a hard drinker, thought his condition an excuse for indulging his appetite more freely. About a week before his entrance he

took cold, which was accompanied and followed by cough, but no expectoration. Five days before admission some pinkish spots appeared upon his forehead, which very soon became of a dark purple and extended over his whole body. With the appearance of these spots, he had a good deal of nausea and vomiting, which continued more or less severely until the time of his admission. At that time his entire surface was of a dark purplish color, and, scattered at different points, were blebs of considerable size containing bloody serum. He presented, in fact, the characteristic appearances of purpura hemorrhagica. His respiration was hurried, his cough was stridulous, his respiration was accompanied in inspiration and expiration with a wheezing sound; there was considerable aphonia, and evidently a great deal more difficulty to the entrance than exit of air. Physical examination revealed the same dark-colored spots in the back part of his throat. The noise in the throat obscured the respiratory sounds, with the exception that at the end of a full inspiration, or after coughing, there was heard a fine gurgling over the posterior portion of both lungs, also slight dulness.

During the night he coughed, or rather vomited, two pints of blood, passed into coma, and died the day following.

At the autopsy the purple spots and blebs were found scattered over the entire surface of the body. The lungs were intensely congested and œdematous. Heart was healthy, with the exception of a slight atheroma upon the mitral valves; the liver was large and fatty, the spleen small and hard, the kidneys were very much enlarged, the cortical portions thick and granular, and the pelves filled with fat. The bladder contained about half a pint of bloody urine. The pharynx, larynx, trachea, and bronchial tubes were of a very dark color, caused by numerous minute punctate ecchymoses, and in addition there were points of fibrinous exudation. It was a case of purpura hemorrhagica complicated with acute laryngitis, tracheitis, and bronchitis, with fibrinous exudation, a very rare complication of affairs.

Dr. Sayre exhibited a fine micro-photograph executed by Mr. Arnold, a student of Bellevue Medical College.

EPITHELIAL GROWTH IN LARYNX, &C., &C.

Dr. Thompson presented a specimen with the following history:—During a brief vacation I was called to see a gentleman in the country, a resident of this city, with the statement that he was suffering from a very severe disease of the throat. On entering the room I could perceive from the stridulous breathing that he had an affection of the larynx. He was breathing with great difficulty. The throat externally was very much swollen, and there was an abscess which had begun to discharge through an opening about a quarter of an inch below the cricoid cartilage. This abscess extended on the right side, up along the thyroid cartilage, and almost reached to the mastoid process. On opening the mouth pretty widely, pus flowed more freely from the opening.

A year ago last April, the patient having suffered for a month from symptoms of sore throat and hoarseness, was taken with a chill, followed by swelling, which burst internally. His throat symptoms increased after that, and were accompanied with a great deal of coughing and profuse expectoration, with difficult respiration, at night especially. About six weeks after this he had a slight chill, increased difficulty of respiration, and in a few days the expectoration of a large quantity of fœtid matter. He had been under the care of four gentlemen of our own profession, and had ultimately drifted into the hands of a homeopath. During the whole time had difficult respiration, cough, and expectoration, all of which were from time to time aggravated by the reformation of abscesses in the neighborhood of the larynx. He went to Cornwall on the Hudson in the latter part of June, and there he had an abscess form, of such size as to threaten immediate suffocation, and for two days was in danger of death from apnœa. That abscess also burst, and was discharged through the trachea. He said that at the time it did burst it nearly suffocated him, and that he was compelled to cough violently for an hour, and finally became insensible. When I saw him I could not make any thorough examination of his case, but from his previous history I did not think much if anything could be done. I recommended the application of bladders filled with ice on the right side of the thyroid cartilage.

On the 14th of Sept. he returned to this city, and I was called to see him laboring under the same symptoms. Another abscess had formed, and there was great difficulty of respiration. He sat up in bed, covered with a cold perspiration, and it seemed that he could not live many hours without relief. I gave my opinion that another abscess had formed, deeper than the one which I had seen in the country, and that it was encroaching so much upon his breathing that probably the result would be fatal unless there was surgical interference. I accordingly advised tracheotomy, and asked my friend Dr. Mason to perform it. The operation was done about an inch and a half below the cricoid cartilage, on the 15th of September. It was followed by a great expectoration of pus, very fœtid in character, and which continued for a number of hours. He recovered from the operation very well, the swelling about the trachea and larynx went down, and the larynx could then be examined. I made repeated examinations of his throat with the laryngoscope. Externally there was no swelling of any account, except what appeared to be due to a thickening of the tissues. His lungs appeared healthy, except that they were filled with a muco-purulent secretion, which he coughed up incessantly through the tube. He was able to swallow without much difficulty. In the course of October, two or three more abscesses formed in the neighborhood of the larynx. They discharged by fistulous openings, sometimes on one side of the tube, and sometimes on the other. These fistulæ led up respectively to what appeared to be a diseased portion of the thyroid cartilage. By laryngoscopic examination nothing could be detected except that the right vocal cord was destroyed, and below it was a whitish looking surface which I took to be a sequestrum of necrosed cartilage.

The abscesses became more and more frequent, while the discharge through the tube was almost incessant.

The question occurred to our minds whether there might not be malignant disease. We came to the conclusion, after repeated examinations, that there were no signs of it. It also occurred to me that the disease might be due to a death of a portion of the thyroid cartilage, and that the sequestrum might be removed by operation. Dr. Mason and myself, in regard to this point, took the advice of Dr. Smirock, who had seen the patient in the month of April. He regarded the operation as justifiable, and confirmed our suspicions. The operation was accordingly performed by Dr. Mason; but discovering an epithelial growth attached to the right portion of the thyroid, and diffusing itself downwards along the tracheal mucous membrane, it was thought advisable to go no farther. The patient died quietly from simple exhaustion fourteen days afterwards.

The specimen was exhibited.

The Society then went into Executive Session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Special Meeting, Dec. 19, 1870.

Dr. Abram Jacobi, President, in the Chair.

APHASIA. DISCUSSION ON DR. HAMMOND'S PAPER.

Dr. J. C. Dalton.—I have listened to the paper with unusual interest. It takes up a topic which has excited much discussion at the hands of able writers on both sides, the theory it propounds having been debated with varying fortunes for something like thirty or forty years. It is very certain that if we could succeed in locating in any particular part of the brain so very important and peculiar a function of mental power as that of speech, it would not only be of great moment in itself, but it would have a strong bearing upon the old doctrine of Gall and Spurzheim concerning the location of all the mental faculties in special parts of the brain. This gives the subject additional interest.

The paper has traced very satisfactorily and completely the history of the various attempts to localize the faculty of speech—first in the anterior lobes of the brain; then in the left anterior lobe; then in the third convolution of this lobe; and, finally, in the whole region supplied by the left middle cerebral artery. It has brought out very clearly the distinction, of cardinal importance, between ataxic aphasia, dependent on inability to co-ordinate the muscles of articulation, and amnesic, or true, aphasia, dependent on the loss of the mental power to remember words or to represent ideas by them. A point new to me, and of the greatest interest, is the ingenious explanation given of the habitual occurrence of aphasia as a result of lesion of the left hemisphere, taken in connection with its occasional occurrence from lesion of the right—the theory that this is analogous to right- and left-handedness, and due not to original difference in function of the two hemispheres, but to their independent action, and to the earlier or stronger development of the left, so that it comes to be used in preference to the right, and acquires its predominant functional power by this kind of education.

There is a consideration which strikes me as important in judging of the value of the very numerous cases adduced in support of the localization of the faculty of language; that is, to determine exactly what the faculty of language is. Is there any distinct mental endowment which we can designate as this faculty, that is, as the faculty of articulate speech? For there are, as it seems to me, two essentially different kinds of language—one possessed by animals, sometimes even in greater perfection than by us; the other peculiar to man. There is a language altogether emotional—springing from the emotions and appealing to them—which conveys very definite information within its own sphere; this is the language of expression. When we observe the vocal sounds of a dog or cat, for example, and the postures and movements that accompany them, we know perfectly well whether the animal is pleased or angry, frightened or feeling at ease. Perhaps nearly all the emotions may be thus expressed, without articulate language, simply by the tones of the voice, and the manner in which they are emitted. This language we, of course, possess in common with animals, though not to the same extent as they.

But when we come to articulate speech, that is a very different thing. The word which we employ to represent an idea is an entirely arbitrary symbol; it has nothing of the character of the object for which it stands. Articulate language, then, is a series of sounds arbitrarily determined on to represent our ideas. In order to use it, or to comprehend it, it is necessary that the memory should be very highly developed; and I am not sure but that may be all that is necessary; but the "faculty of language" may be simply a very highly developed function of memory. We know that a deficiency of memory always produces difficulty in the use of language. And the cases most interesting to us, in this point of view, are those of pure amnesic aphasia, where there is no paralysis of the muscles of voice or of articulation, but simply loss of memory of words. I think every one has felt more or less of a transient deficiency in the power of language from a momentary failure of memory. It requires no apoplexy or embolism to make us conscious that at some times we cannot command words as well as at others. The words we are most apt to forget are those expressing a rather complicated idea. We never have any difficulty in recalling words expressing ideas simple and familiar, as *dog, cat, to-morrow, yesterday;* but those required to express the exact shade of meaning of ideas perhaps complicated, perhaps unfamiliar, as *reputed, transubstantiate, rehabilitate*—these are the words which now and then elude us. We lose, too, the names of unfamiliar persons or things. I suppose every one has gone up to a door, rung the bell, and then been covered with confusion at his inability to remember the name of the person he was to see; or has been telling a story, and suddenly forgotten the very word that was to give it point. I was once relating a humorous incident, the whole gist of which depended upon the contents of a bottle which a gentleman had been handling in careless fashion, and upon his terror on being told what he was doing. I knew, as soon as I had begun the narration, that I had forgotten the name of the liquid in the bottle, and that if I did not recall it in time my story would fall perfectly flat. I had in mind all the while the appearance and character of the liquid, an oily compound, highly explosive, and by no means to be knocked about in the rough manner I was describing; but it was only at the very instant it was wanted that the name *nitro-glycerine* came to me. We see, then, that words are forgotten by men in perfect health. I do not think we can draw any sharp line of distinction between the failure of language in these cases and that observed in the morbid condition known as complete aphasia. When the aphasia is complete, I suspect it is nothing but simple loss of memory.

Now, can we locate this faculty of memory, if you choose to call it such? Can we place it in the anterior lobe, or in those parts of the brain in the neighborhood of the fissure of Sylvius? We have noticed, in reviewing all the cases reported, that at first there were quite a number showing the occurrence of aphasia with injury of the anterior lobes; after a time there were others showing injury of these lobes, and even entire destruction of them, without aphasia, and consequently the theory which located the faculty of language here had to be given up. Then, from certain cases exhibiting aphasia with lesion only of the third left frontal convolution, the faculty was located in this more limited spot; but since that time there have been many cases in which this convolution has been nearly or quite destroyed, and yet no aphasia had existed. I fully agree with Dr. Hammond, that these negative cases are entirely sufficient to overturn the theory that the power of language exists exclusively in this part of the brain. But may it not be questioned whether it exists exclusively in *any* part of the brain? There is no distinct line of demarcation between any two parts

of the hemispheres We find the two opposite sides fully connected by the transverse commissure, and fibres from all parts of the anterior, middle, and posterior lobes converge to form the cerebral peduncle. If we were to depend alone upon the anatomy of the fibres of the brain, I do not think we could form any *à priori* notion of the possibility of locating any faculty in any one part. I think it possible that the brain may act always as a whole, and that, if the power of language depends simply upon a highly developed faculty of memory, we may regard the memory as located in the whole brain, right and left side alike, both acting together. How, then, have we loss of memory when a limited part alone is injured? I think that is explained by the diminution of the functional power in an organ which acts as a whole by injury of any part of it. Perhaps if we had as many cases of embolism of the posterior lobes as of the anterior, we should have aphasia as often resulting from lesion of those lobes.

The most curious thing about aphasia is its occurrence in such a vast preponderance of cases, in connection with hemiplegia of the right side. I think the explanation we have heard to-night is the first which has been offered at all satisfactory—Moxon's theory of the habitual left-handedness, so to speak, of the brain. Until this was suggested, there seemed to be a good deal of force in the argument of Broca's opponents, that he gave different functional endowments to corresponding parts of an organ so symmetrical as the brain. But the new suggestion meets this very happily. There would seem to be a certain analogy between the habitual use of the left brain and that of the right hand, yet the analogy may not be so close as it at first appears. There is a mechanical necessity for using one hand or foot rather than both in many cases; and if the right happens to be originally a little the stronger, it gets the preference, and then holds it by virtue of education and habit. I think it doubtful, however, whether we can extend this analogy much further. I do not know of any reliable facts to show that we use one eye or one ear rather than the other; certainly there is no evidence that one lung, or one kidney, or other symmetrical viscus, has any precedence over its fellow, as there is no apparent necessity for it. It is questionable, therefore, whether we can credit the left half of the brain with greater functional activity than the right. But if we admit it—and Dr. Hammond has mentioned that the left side is the earlier developed and the better nourished—may not this superior activity and efficiency afford the explanation of the fact that aphasia occurs oftenest with lesion of this side? If the left hemisphere is the stronger and the more used, it is this which will assist us the most in the use of language, as in other mental processes. Consequently, lesion of this hemisphere will be the most likely to produce aphasia in all its varieties, from the simple forgetfulness of particular words to the complete form where all power of articulate expression is lost. I think it is possible to explain all the facts in this way.

Although, then, many instances appear to point to the location of the faculty of speech in some part of the brain situated near the fissure of Sylvius, I doubt very much whether we can place it exclusively even in so broadly defined a region as this; and I am in still greater doubt whether we can locate this faculty, or any faculty, upon one side of the brain alone.

Dr. Neftel.—I was glad to hear mentioned the name of Dax, who, I think, must be regarded as the real discoverer of the centre of speech, though commonly ignored by writers on aphasia. This centre is certainly the most interesting of all those which have been discovered in the nervous system inasmuch as it is the only one belonging to the intellectual sphere which has as yet been localized in the brain. But the question arises, whether we are justified in admitting the existence of such a centre. I think we are justified by analogy. Recent investigations have discovered several other automatic centres, some of which produce complicated, co-ordinate movements with the regularity of clockwork. These centres are innervated either directly by the psychical organ or through reflex action from the periphery. Such a centre is, for instance, the well known centre of respiration, situated in the medulla oblongata, at the origin of the pneumogastric and accessory nerves. Its irritation increases the respiratory movements (dyspnœa); its section abolishes them, and is therefore fatal. Another centre has lately been discovered in the medulla oblongata—the vaso-motor centre. Its irritation produces contraction of the arteries, and increased blood-pressure in the heart; its section, on the contrary, paralyzes the vaso-motor nerves, the arteries become dilated and filled with blood, and the heart almost empty. The centre of deglutition and mastication is also in the medulla oblongata. Nothnagel has discovered the so-called convulsive centre, situated in a limited space on the floor of the fourth ventricle, in the pons varolii. Its direct or reflex irritation produces general epileptic convulsions. Goltz has discovered the centre of equilibrium situated in the corpora quadrigemina. Setschenow, a countryman of mine, has discovered an inhibitory centre for the reflex activity of the spinal cord, situated in the thalami optici; and Adamück, another countryman of mine, has quite recently discovered the centre for the co-ordinate movements of the eyes, situated in the anterior hills of the corpora quadrigemina. But the centre of speech is certainly the most interesting of all, being at the threshold between the motor and the intellectual functions.

The affection of this centre—aphasia—is generally produced by embolism of the left arteria fossæ Sylvii, which is often the seat of embolism, whilst the right one is very seldom. The most plausible explanation of this fact is, that, as the left carotid artery originates from the aorta, therefore the current of blood in the left cerebral arteries is more powerful than in the right ones. This explains also the greater weight of the left cerebral hemisphere, and the greater development of the right side of the body. Griesinger and Sander think that the centre of speech is situated in the "island of Reil;" and, as an anterior branch of the arteria fossæ Sylvii goes to the third frontal convolution, the affection of this convolution generally accompanies embolism of the arteria fossæ Sylvii.

I have seen quite a number of aphasics, both in Europe and in this country, but I shall mention only two cases which I have recently had under observation, and which, I think, are in some respects unique. One was the wife of a physician. She had had intermittent fever for many years. Last year she had a febrile disease, accompanied with severe headache, and was suddenly attacked by apoplexy, with loss of consciousness, passing into coma. These symptoms disappeared after a few days, but there remained aphasia with right hemiplegia. Her husband described the symptoms, and I gave my opinion that the acute disease, which preceded the apoplectic attack must have been endocarditis, followed by embolism of the left arteria fossæ Sylvii. But on careful examination I could not find any trace of endocarditis, and I concluded that probably the embolism was effected by pigmentary matter, which is often found in considerable quantities (melanæmia) in cases of severe and protracted inter-

mittent fever. I treated the patient with the galvanic current during several months, and she finally recovered.

Another patient, a young lady, presented a peculiar kind of aphasia, which originated quite suddenly. She called everything by the wrong name, and was surprised that others did not understand her. There was no paralysis in this case, but a considerable degree of leuchæmia. As far as I could ascertain, there was one white blood-corpuscle for fifty red ones, the normal proportion being as one to three hundred. I suppose that here a transitory embolism of the left arteria fossæ Sylvii was effected by the agglomerated white blood-corpuscles, for she entirely recovered under a tonic treatment.

The circumstance so characteristic of aphasia, that patients, as a rule, will show an object if its name is given, but are unable to name an object shown to them, Griesinger expresses in the following manner: The conduction from the acoustic image (Klangbild) of an object to its optic image is not affected in aphasia, while the conduction from the optic image to the acoustic image is interrupted.

MECHANICAL TREATMENT OF HERNIA.

Dr. Norton Folsom exhibited a truss of his own invention, and read a paper upon this subject, of which the following is an abstract:

The mechanical treatment of hernia has of late fallen into the hands of mechanicians, who lack the knowledge of anatomy, physiology, and pathology requisite for the scientific treatment of a lesion so liable to grave complications and consequences. Nothing short of a regular medical education is sufficient. The community has suffered by the abandonment of this field by the surgeon, as many of the truss-venders simply endeavor to sell expensive instruments without reference to their suitableness. It is the duty of the practitioner to insure that his patient uses efficient apparatus, and above all that it does not aggravate what it is intended to cure.

Hernia is recognized as a very common disease; but besides those aware of their infirmity, there are many in whom it is incipient and fails to attract attention; yet it is in these very cases that its efficient mechanical treatment is especially important, as its progress may be arrested by easy and convenient apparatus, and much danger and disability be avoided. Patients may disregard this ailment, if it gives little inconvenience, or even conceal it from their medical advisers from ignorance or false shame.

Inguinal hernia which is acquired, not congenital, exists for a considerable time, in most cases, as bubonocele. The surgeon is aware, however, of the essentially progressive character of the disease, and that there is no limit to its extension. The stomach itself has been known to descend to the scrotum, and a hernia has been observed of such size and character as to prevent sexual intercourse. Of course the most serious feature is the liability to strangulation. As the surgeon, and not the patient, is familiar with these and other dangers, and with the possibility of arresting or even curing the affection, it is the duty of the obstetrician, of the family physician, and of every custodian of the health and bodily integrity of others, to ascertain whether those under his care are subject *in any degree* to this ailment, and to see that they are properly informed regarding it. Its tendency being to increase if neglected, the reverse is true if protrusion be entirely prevented for a sufficient time. This is especially true of "hernia with congenital sac," where the protrusion is into the vaginal process of the peritonæum, which has failed to close as it should before birth. There is a strong natural tendency to recovery in these cases, and this is the reason that the great majority of infants can be permanently cured, while a cure is the exception in adults, in whom the hernia is usually "with acquired sac." But even in adults the parts have a tendency to resume their resistant power, so that, after protrusion has been prevented for some time, gentle means may suffice for maintaining the parts in place.

The most successful instrument and method for radical cure, in either variety of hernia, is simply that which most efficiently keeps the viscera at all times within the abdomen; though a special pressure over portions of the inguinal canal, for limited periods, and with due precautions, will be of service in certain cases.

The injury most frequently done by injudicious treatment is the weakening of the parts by the pressure of a highly elastic spring on a convex pad, which bores its way into the body, driving the pillars of the ring farther and farther apart, stretching the intercolumnar fibres, and causing wasting of the tissues—the same process being continued from the outside that was before going on, from within, by the action of the disease. The use of a convex pad should be abandoned whenever the hernia can be perfectly retained by a flat surface. In obese persons more or less convexity is usually necessary, but the cushion of fat prevents the boring action to a great extent.

It is desirable that the spring of a truss should conform accurately to the shape of the body, so as not to be displaced by the movements of the patient; the danger of a misplaced pad being not only the partial or complete escape of the hernia, but also the various evils resulting from compression of the spermatic cord against the pubes.

The form of truss exhibited, made by Tiemann & Co., is a simple one. In order to secure the most accurate adjustment, each one has been made from measurement, and fitted to the individual before being tempered and finished. It consists of an oval back-plate, of steel or other metal, about $\frac{1}{16}$ inch thick, 5 inches long, and $2\frac{1}{2}$ inches wide, intended to rest upon the flat surface at the upper part of the sacrum. The edges are slightly everted all around, to prevent cutting into the skin. In the middle of this is riveted a piece of metal $1\frac{1}{2}$ inch square, portions of which are turned up to form hinges with the arms of the truss. The arms are made of steel, about $\frac{1}{16}$ inch thick, and $\frac{7}{16}$ wide, with rounded edges. Each of these curves vertically from the hinge about 2 inches upward, the highest point being about midway in its course; and from t is point curves downward 4 or 5 inches to the tip in front. This curve is to bring the arm along just below the crest of the ilium, to avoid the disturbing action of the glutæi muscles, and carries it between the anterior superior and the anterior inferior spinous process of the ilium. This curve is given in cutting the arm out from the sheet of metal. The lateral curve is given by the hand of the surgeon before tempering. The truss is always made double, whether rupture exists on both sides or not. The pads are made of wood, somewhat pear-shaped, about $3\frac{1}{2}$ inches long, 2 inches wide, and $\frac{1}{2}$ inch thick, perfectly flat, with rounded edge. The lower edge is straight, and rests against Poupart's ligament. This is the form recommended for bubonocele, and, in fact, for every inguinal hernia, which is perfectly retained by it. The pad is fastened to the arm by two screws, adjustable by slots if desirable. The upper one in each pad is a stud-screw, and these two are connected by a leather strap 7 or 8 inches long. About 6 inches from the tip of each arm may be

placed a small stud for another horizontal strap, to give additional abdominal support. The pressure of this truss is intended to strike a medium between the very elastic French model and the much stiffer German instrument. The exact lateral curve being determined, the metal is tempered, and plated with nickel or silver to prevent rusting. No cover is used upon it; a silk handkerchief or flannel bandage being worn under it, and a compress, or flat sponge softened by glycerine, being applied beneath the pad if required. In very thin persons some change of shape of the back-plate may be necessary, to avoid pressure on the spinous processes. A pad of any shape or kind can of course be applied to this frame.

The principal merits claimed are as follows: 1. Firmness and immobility. 2. No thigh or perinæal strap is necessary in most cases. 3. The straps in front support the abdomen, which is found practically to be an advantage. 4. It is more comfortable for being double, and not only is the hernia better retained in this way, but protrusion on the other side, to which there is so often a tendency, is guarded against. 5. Its durability is very great, which makes it economical. 6. It contrasts with the terrible offensiveness of an old padded truss, covered with material which absorbs the secretions, in being perfectly cleanly, as it can be washed, and the simple straps renewed, whenever desired. 7. While it gives as good a chance for radical cure as any other, it is believed not to have the tendency to aggravate the disorder that makes many of the instruments in use sources of actual danger.

The paper of Dr. Folsom was accepted, and laid on the table for further discussion.

The meeting adjourned.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 4th, 1871, to February 17th, 1871, inclusive.

Sloan, Wm. J., Surgeon, at Louisville, Ky.—Headquarters Department of the South, moved from Atlanta, Ga., to Louisville, Ky.

Wilhau, J. J., Surgeon, at Louisville, Ky., Attending Surgeon.—Headquarters Department of the South, moved from Atlanta, Ga., to Louisville, Ky.

Bill, J. H., Surgeon.—By S. O. 58, War Department, A. G. O., February 9, 1871, so much of S. O. 385 A. G. O., of December 31, 1870, as discharges this officer, is revoked.

Michler, W. H. H., Assistant Surgeon.—By S. O. 22, C. S., Headquarters Department of the Platte, assigned to temporary duty at Omaha Barracks, Neb.

Correspondence.

WHERE IS THE FLAW IN THE LIFE INSURANCE COMPANIES?

To the Editor of the Medical Record.

Sir—Public attention is now attracted by the insecure condition of Life Insurance Companies. The secular Press, quite unanimously, attributes the present crisis to the immorality of their managers. Without denying this cause, we consider it secondary to a more organic defect, the mismanagement of the medical department of the Life Insurance Companies; mismanagement due to a profound ignorance of the resources offered them by the recent progress of vital diagnosis. That is it: in the midst of the progress of all trades and industries, the Life Insurance Companies have not improved the medical guarantees devised for their own security half a century ago. Meanwhile the applicants for policies have become more and more crafty in the art of insuring death instead of life. Two such cases came recently under my observation. A man of 65, after an attack of apoplexy followed by slight paraplegia, had his life insured and died within a year. The other, not over forty, but completely exhausted and worn out, came to me boasting that a company had insured his life, notwithstanding that I had told him that I would not give two cents for it; within six months he had a pneumonia that he had not the vitality to carry to the seventh day. Moral No. 1.—The wives of both, respectively, pocketed five thousand dollars. Moral No. 2.—In the former case, the sphygmographic traces would have been blunted by senile calcification, and otherwise distorted by the irregularity of the waves of the circulation. In the latter case, thermometry would have shown evening rises of temperature of more than two degrees, both pathological signs forbidding or invalidating any contract of insurance. In this unequal contest, the managers of the Life Insurance Companies, instead of borrowing their protective weapons from science—which always comes to the rescue of those who diligently ask for its assistance—have resorted to wicked means of enriching themselves by the ruin or discredit of their concern; here their blunder became the crime before which public opinion is arrayed today.

A few words will explain this proposition and the reform included within it.

True, the Life Insurance Companies secured the help of physicians to ascertain the chances of longevity of the applicants. But (*a*) they have paid an indifferent salary or fees, instead of a large *pro rata* on the benefits accruing from the skill of the diagnostician; a measure which would have enlisted in their service all the talent of the country. (*b*) They have only asked from their physicians the filling up of a few routine questions concerning the family, age, infirmities, etc., and the bodily examination of the applicant by the means of *physical diagnosis*, as inspection, auscultation percussion, etc. But in no case or place have they introduced as obligatory the use of the method and instruments of *positive diagnosis* recently contrived to record mathematically or graphically the signs of vitality, and so admirably adapted to test those of longevity.

This blunder of ignorance brings us to the comparison of the practical value, for Life Insurance Companies, of the instruments and methods of *physical* and of *positive* observation.

(Here is no room for the description of both series, stethoscope, pleximeter; thermometers, dynamograph, etc., nor of their modes of operation, or their scientific import.)

But practically, and in general, we may say (*a*) the results obtained from the instruments and methods of *physical diagnosis*, are the expression of individual sensory impressions, rendered in the individual's own language, two elements which necessarily vary from man to man, and whose correctness cannot be verified at the central insurance office. (*b*) On the other hand, the results obtained by the instruments and methods of *positive diagnosis* are expressed by figures and diagrams which the imagination of the observer cannot alter, nor his power of rhetoric even color; which will be identical in identical conditions, and will sustain among

themselves a concordance that bespeaks truthfulness, and which moreover could always be controlled, from whatever distance, by a medical superintendent.

(*c*) Another practical difference between these methods and instruments of observation, so widely and purposely separated by the appellations of *physical* and *positive*, is that the former are decidedly best adapted to the diagnosis of actual diseases, and the latter more pointedly to the pre diagnosis (in a certain sense a prognosis at long range) of the deficiencies of vital functions which threaten longevity, not so suddenly, but more surely than disease itself. And as it is very seldom that a man actually sick asks for the benefit of a policy of insurance (for which *physical diagnosis* would instantly detect his unworthiness), it is, on the contrary, of common occurrence that, as soon as a man feels, or his relatives suspect, that his vital powers are imperceptibly but steadily declining, he becomes an applicant for a policy; the larger, because they know he will not live long enough to pay several annuities. On these cases *physical diagnoses* throw very little light indeed, whilst the instruments of *positive diagnosis* denounce the fraud with unanswerable evidences.

Let us now meet squarely two objections made to the use of the instruments and methods of *positive* observation.

(*a*) It is alleged, mostly by men who like—and justly too—to rely upon their own superiority, that medical diagnosis is an art, and that the instruments intended to operate *in lieu* of the senses—however perfect they may be—cannot take the place of the artist himself. This objection is specious. Of course, diagnosis is an art, but an art broader than a few eminent individuals can conceive. It is, above all, a useful art which, proud of its Raphaels, is also nobly represented in the field of labor by its armies of faithful and intelligent photographers; all physicians cannot be great, all must be useful, even if they need instruments of precision to give more correctness to their clinical senses:—even if it was only when they are engaged to work for Life Insurance Companies.

It has been objected, too, to the use of instruments and methods of *positive* observation, that they do not give signs that could be considered as *pathognomonic*. This criticism, if founded, would be of great weight at the clinic; but it imports not so much to a Life Insurance Company to know with what specific disease an applicant for a policy is threatened, as to be certain, by *positive* signs, whether his vital powers and longevity are threatened or not. But it is not true that *conjectural*, *rational* or *physical* diagnosis offers more pathognomonic signs than the *positive* method. For instance, Sidney Ringer said in his *Temperature as a Means of Diagnosis*:—"The temperature may be taken as a measure of the amount of tuberculosis and tuberculization, and any fluctuations in it indicate corresponding fluctuations in the severity of the disease. The temperature is a more accurate indication of the amount of tuberculosis and tubereulization than either the *physical signs* and the *symptoms*. By means of the thermometer we can diagnose tuberculosis and tuberculization long before the *physical signs* and *symptoms* are sufficient to justify such diagnosis." And what is more pathognomonic of paralysis, for instance, than a progressive difference in the contractility or tactile sensibility of both sides, as mathematically demonstrated by dynamometry and œsthesiometry?

Soon the signs given by the method and instruments of *positive diagnosis* will certainly increase in number, accuracy, value, and importance; but even as they now are, they offer to the Life Insurance Companies —without excluding other methods of observation—the surest means of fighting successfully the ever-living demon of cheat, and of fairly and successfully managing their own business.

To sum up these remarks, we advise the Life Insurance Companies—(*a*) To give their medical officers the highest rank in their staff. (*b*) To remunerate them, not for their services, but in generous proportion to the benefits accruing to the concern from their skill in vital diagnosis. (*c*) To make sure that they possess all the instruments necessary for modern investigations, as microscope, thermometers, &c. (*d*) To submit them to the most rigid examination in regard to the knowledge and manœuvres of the instruments of both *physical* and *positive* observation. (*e*) To refuse no application for policy, and to insure every applicant, not only upon a graduated scale of age, but mostly upon categories of probable vitality founded on *physical* and *positive* diagnosis.

By so doing, the Life Insurance Companies will be able to mend their ways, and to substitute, in the war of commerce, the honorable weapons of science for the demoralizing tactics which have disgraced them as men, and threaten their very existence as members of corporate bodies.

Truly yours,

E. Seguin, M.D.

New York, Feb. 20, 1871.
58 W. 26th street.

Medical Items and News.

Dr. Meredith Clymer will deliver a course of lectures "*On the Diseases of the Nervous System and of the Mind*," at the ensuing session of the Long Island College Hospital, Brooklyn, N. Y. Dr. Clymer is largely known to the profession of this country, and of Europe, by his contributions to this department of literature, and we have no doubt, therefore, that his course will be of great value to the students of the Long Island College.

The Medical Library of the late Prof. George T. Elliot, M.D.—The Medical Library and Journal Association of New York have purchased the large and valuable medical library of the late Prof. Elliot.

Dr. W. T. Lusk has been appointed one of the physicians of Bellevue Hospital in place of the late Dr. Geo. T. Elliot.

New York Medical Register.—Dr. A. E. M. Purdy has been elected by the Medico-Historical Society editor of this useful and popular Register. Dr. E. Lee Jones, the former editor, has been appointed surgeon to the steamer Alaska.

Brooklyn Eye and Ear Hospital.—The report of Dr. D. Webster, in our last number, came from this institution, instead of the Manhattan Eye and Ear Infirmary, as stated.

New York State Inebriate Asylum, Binghamton.—From the Annual Report of the Superintendent and the Secretary of this institution for 1870, the following statistics are gathered: When Dr. Daniel G. Dodge took charge, May 16, 1870, the number of patients was 54; number received since May 16, 135; whole number treated, 189; discharged, 118; present number of patients (Dec. 31, 1870), 71. Of the 118 discharged, there were discharged with great hopes of a permanent reformation 91; discharged unimproved, 27. The cures in the asylum, in the past two and one-half years, have been sixty-three per cent. of the patients. With such facts the Superintendent claims for the asy-

lum a favorable comparison with sister asylums that have made the treatment of insanity a specialty.

Of the 220 received during the year, 56 were from New York city and Brooklyn; other parts of State of New York, 80. Average age of the patients, 35 years—12 were book-keepers, 49 clerks, 36 merchants, lawyers 17. Thirty per cent. were free patients. Officers: William Parker, M.D., President; Daniel G. Dodge, M.D., Supt. and Physician.

Death of an Editor of the Medical Times, Phila.—Edward Rhoads, M.D., late Physician to the Phila. Hospital, Clinical Lecturer on Physical Diagnosis in the University of Pennsylvania, and one of the Editors of the *Medical Times*, died in Philadelphia, January 15, 1871, aged 29 years.

Death from Chloroform.—Dr. W. W. Dawson, Surgeon to Cincinnati Hospital, publishes in the *Cin. Lancet and Observer*, twelve unrecorded cases of death from chloroform.

Dr. Hughes Bennett recently reported the following sad case: A beautiful daughter of an Edinburgh barrister, in perfect health, went to a dentist's office one morning and had a tooth extracted. Five minutes afterwards she was dead. He believes this is only one of many similar cases which occur, and are never published.

Bismuth in Texas.—Bismuth ore, in rich deposits, has been discovered in Archer County, Texas.

Homœopathy in America.—According to *The New England Gazette*, there are in America the following homœopathic colleges, journals, hospitals, &c: Nine colleges; eight journals; twenty State societies; fifty-two local societies; twenty-one hospitals; twenty-eight dispensaries; and five thousand physicians, or about one-sixteenth of the number of regular physicians in this country.

A Gift to Prof. James P. White.—The late Prof George T. Elliot presented an elegant silver *epergne* to Prof. White, in token of appreciation of his services in Bellevue Hospital Medical College during the past winter. The *centre-piece* has the following inscription: "Souvenir of Bellevue Hospital Medical College, 1870. Professor James P. White, from his friend George T. Elliot."

Commencement of the Medical College of the University of New York.—The Annual Commencement of this department of the University of New York was held at Association Hall on Tuesday evening, Feb. 21st, 1871. The exercises were of an interesting character, and were appreciated by the large audience. Chancellor Crosby opened the exercises with a selection of Scriptures, prayer, and as short address, in which he stated that the College was never more flourishing than at the present time. The graduating class numbered ninety, which was larger than any that had left the Institution during the past ten years. *The Mott gold medal* was awarded to M. Fernandez, West Indies; *the Mott silver medal* to Dr. A. K. Baldwin, N. J.; *the Budd prize* to N. B. Sizer, N. Y.; *the Loomis prize* to Dr. T. S. Sumner, Ala.; *the Thompson prize* to Dr. E. P. Cooper, N. Y.; *the Roosa prize* to Dr. Tien Hee, Siam; and *the Weisse prize* to Dr. William Stoddart, Wis. The entertaining valedictory address to the graduates was delivered by Prof. John C. Draper. Dr. E. F. Preston, of New York, made the valedictory address of the graduating class.

Ligation of the External Iliac Artery.—Mr. Abernethy first practised this operation in 1796. In 1806, his efforts were finally crowned with success. Dr. Dorsey, of Philadelphia, in 1811, was the first to perform this operation in this country, in a case of inguinal aneurism.

Home for Incurables, West Farms, New York.—Dr. H. M. Sprague, of Fordham, New York, physician to this Institution, states in the Fourth Annual Report, that during the past year there have been fifty-nine patients under his charge. Of this number, there were—

Remaining at last report	29
Admitted during the year	30
Discharged, or removed by friends	15
Died	9
Present number	35

The prevailing diseases were:—Cancer of mamma, 5; cancer of uterus, 3; debility and old age, 7; hemiplegia, 9; phthisis pulmonalis, 4; rheumatic gout, 4; hysteria and paraplegia, each, 3; progressive locomotor ataxy, 3; epilepsy and chorea, each, 2; elephantiasis græcorum, 1.

There were three deaths from cancer of the mamma. One case each, of fracture of the femur, Pott's disease of spine, and phthisis pulmonalis, was cured.

The Home originated four years ago at the house of Mr. Franklin F. Randolph of this city, is in a flourishing condition, and is open to the epileptic, the consumptive, the rheumatic, and other diseases and infirmities incident to old age, without respect of persons, nationality, religious preference, or the color of their complexion.

Ligation of the Common Iliac.—Dr. William Gibson, of Philadelphia, first ligated this artery in 1812, in a case of gunshot wound. The patient died in thirteen days from ligation. Dr. Valentine Mott, in 1827, tied it for the first time, for aneurism. The man was well in less than two months.

Dr. S. D. Gross states that it has been secured altogether about forty times.

The Removal of Foreign Bodies from Trachea.—In the statistics of Dr. Gross, with reference to the removal of foreign bodies, either with or without the operation of tracheotomy, the percentage of deaths without operation is 16⅔; after operation, 18¼ Dr. Doe, of Boston, in his remarks before the *Boston Society for Medical Observation* on five successful cases of tracheotomy, says truthfully that the success of the operation depends on forming an artificial opening through which the foreign body may be expelled by the voluntary efforts of the patient.

New Publications.

BOOKS RECEIVED.

A Treatise on the Chronic Inflammation and Displacements of the Unimpregnated Uterus. By Wm. H. Byford, A.M., M.D, Professor of Obstetrics and the Diseases of Women and Children, in the Chicago Medical College; author of "The Practice of Medicine and Surgery, applied to the Diseases and Accidents incident to Women," &c., &c. Second Edition, enlarged, with numerous illustrations. Philadelphia: Lindsay & Blakiston, 1871.

The Change of Life in Health and Disease. A Practical Treatise on the Nervous and other Affections incidental to Women at the Decline of Life. By Edward John Tilt, M.D., Senior Physician to the Farringdon General Dispensary and Lying-in Charity; Vice-President of the Obstetrical Society of London; Fellow of the Royal Medical and Chirurgical Society, and of several foreign societies. From the third London edition. Philadelphia: Lindsay & Blakiston. 1871.

Original Communications.

ON DIABETES.

Being an Abstract of a Paper read before the New York Academy of Medicine, Feb. 2, 1871.

By GOUVERNEUR M. SMITH, M.D.,

physician to the new york hospital.

Mr. President and Fellows of the New York Academy of Medicine: The disease known as diabetes, though recognized as a distinct disorder for many years and made a subject of philosophical medical research, has still lingering about it many unsolved questions relating to its etiology, pathology, and treatment. It is therefore a malady almost as attractive for our study as though it was a new field of inquiry. Aided by the facts which have been accumulated by predecessors and contemporaries we are justified in anticipating an early solution of several of the vexed questions to which I have alluded.

The physiologists have partially explained the phenomena of glycogenesis; the pathologists have not as yet been equally successful in describing the conditions favoring glycosuria. As clinical observers are to-day better armed and equipped to investigate the subject, it is but becoming that we should at once proceed to systematically arrange relevant physiological and pathological facts, and, binding them together with an Ariadnean thread, present an array of truths useful in their practical bearings.

While the term diabetes was employed by the older medical writers, it did not convey the same significance of meaning that it does at the present day. Derived from the Greek, δια, through, and βαινω, to pass, it simply implied an immoderate flow of urine. A new importance was attached to the expression when Dr. Thomas Willis, of Oxford, about two centuries ago, declared that the urine in diabetes contained saccharine matter.

The advance made by Dr. Willis in his investigation of the subject of diabetes was, however, quite insignificant, and his views in regard to the presence of sugar in the renal secretion were merely presumptive. More than a century elapsed before further light was cast upon it, when Dr. Matthew Dobson, of Liverpool, in 1779, proved the truth of Dr. Willis's hypothesis by extracting sugar from the urine voided by a patient suffering with the disease under consideration.

As excessive diuresis is a prominent symptom in diabetes, it is not surprising that our earlier predecessors attributed the malady to some nephritic lesion; indeed comparatively little attention was directed beyond the kidneys until the year 1835, when Ambrosiani of Milan, by detecting glucæmia, showed that the distemper might be either of humoral origin or be the result of lesions in viscera remote from the renal emunctories. It has consequently only been within about forty years that pathologists have been very carefully searching for the causes of glucosuria beyond the kidneys, and the reason for their previous remissness in this regard must be partially attributed to their limited knowledge of chemistry and physiology.

Dr. Smith here presented a table exhibiting the classification of diabetes in various nosologies since the year 1762.

Cullen in 1785 placed the disorder in question in the class neuroses and in the order spasmi. Hosack, in criticising the nosologists who preceded him, remarked in regard to Cullen's classification of diabetes, "I have excluded many of those retained in that class by Cullen as *cholera*, *diarrhœa*, and *diabetes*, which more properly belong to the class profluvia, or excessive evacuations."

While admitting that Cullen was unfortunate in this instance in the precise nomenclature employed, nevertheless his views regarding diabetes were far in advance of his age, and in some respects agree with those which are now held and which Hosack overlooked in his own classification of diseases.

Guided by the inferences of Cullen, Dr. Rollo, Surgeon-General to the Royal Artillery, about the commencement of the present century, was induced to restrict the diet of diabetic patients, confining them chiefly to animal food, and forbidding the free use of vegetables affording saccharine matter.

It is manifestly impossible on an occasion like the present to allude to all of those whose labors have contributed to elucidate the subject of diabetes. It must suffice to give a brief summary of the views of a few of those physiologists who, by explaining normal and artificially produced glycogenesis, have thus thrown light upon the processes of diseases favoring the abnormal production of sugar.

As is well known, Bernard, since the year 1848, has from time to time laid his experiments and conclusions before the medical public. He has shown that the liver possessed a glycogenic function; that the sugar formed did not pass through the hepatic duets, but was carried off by the blood through the hepatic veins, and could be thence traced to the right side of the heart and to the lungs, but there disappeared and could not ordinarily be found in the blood of the general circulation. The liver, he likewise has stated, possesses the property of forming sugar after removal from the body. The sugar is not primarily formed, but is the result, he asserted, of the metamorphosis of a material known as "amyloid matter."

Dr. Pavy, of Guy's Hospital, from his experiments concluded that hepatic sugar generation was a post-mortem phenomenon, and that in life the liver possessed no such gift.

Dr. A. Flint, Jr., from a careful series of experiments, has shown that "during life, the liver contains only the glycogenic matter and no sugar, because the great mass of blood which is constantly passing through this organ washes out the sugar as fast as it is formed; but after death, or when the circulation is interfered with, the transformation of glycogenic matter into sugar goes on; the sugar is not removed under these conditions, and can then be detected in the substance of the liver."

This phenomenon occurs irrespective of the chemical nature of the food taken, but is the more remarkable when the aliment ingested has been of an amylaceous character.

Dr. William T. Lusk has recently shown—

"1st. That the blood of the general system, in carnivorous animals confined to a nitrogenous diet, contains appreciable quantities of glucose, not only during the period of digestion, as admitted by Bernard, but even in cases where animals have been deprived of food for a considerable period of time."

2d. "That the blood of the right side of the heart contains from a quarter to half a grain of glucose per fluid ounce, under strictly physiological conditions."

3d. "That the quantity of glucose in the right side of the heart is from two to four times greater than that found under corresponding circumstances in the jugular vein."

4th. "That this excess argues a by-no-means insignificant amount of sugar in the pure hepatic blood,

before it has become largely diluted with the comparatively non-saccharine fluids of the venæ cavæ."

5th. "That we are forced to admit the fact of sugar formation by the liver, though we fail to detect the presence of sugar in the liver-tissue, when after death the fermentation of the glycogenic matter is prevented."

It seems proven by the experiments of the physiologists above cited, that the liver possesses the property of producing sugar; but the facts they have presented will not warrant us in forming a theorem to the effect that the liver is necessarily or at least primarily the offending viscus in diabetes. Cases of the malady occur in which we can detect no peculiar lesion in the hepatic tissue. An increased normal function of a gland, however, may not be accompanied by serious organic changes; but the result of such hyper-action may prove otherwise disastrous.

After alluding to the special attention of Bernard, in 1855, to the influence of the nervous system upon the secretion of urine, etc., the speaker said that there seems no reason to doubt that irritation applied to certain parts within the cranial cavity has an influence upon glycogenesis and upon various secretions and excretions. How many instances might also be cited to illustrate somewhat similar phenomena from *reflex* action. By exciting the salivary secretion the flow of the gastric juice can be augmented. Bernard and Pavy have shown that the inhalation of anæsthetics and various other gases will be followed by melituria, and attribute such result to the irritation conveyed to the encephalon by the pneumogastric, and thence reflected. Artificial diabetes can therefore be induced by the irritation of certain nerves at their *terminal* ramifications, as well as at or near their points of *origin* within the cranium.

Clinical observation of diabetes confirms the views of experimental physiologists in relation to the etiology of the malady. And here allow me to digress for a moment from my subject, in order, while referring to reflex influences upon secretion, to suggest a new theory, viz., a possible *increase of hepatic glycogenesis under certain normal conditions.*

Sugar is not ordinarily an ingredient of the blood in quantities sufficient to be mentioned in the analyses generally given of that fluid in works on physiology, and again this proximate principle does not normally occur in the permanent secretions and excretions. Milk, however, contains a large amount of this material, according to Robin 37 in 1000, and according to Pereira and Lehmann 47 in 1000, all these authorities agreeing that it is present in the largest proportion of any of its organic constituents.

Now, is all this saccharine matter the result of the elaboration of the mammary glands? Physiologists contend that milk, with the exception of its water and other inorganic principles, is the direct result of the action of the secretiug tissues of the breasts. As sugar of milk differs in character from ordinary sugar, a learned physiologist has argued that it is prepared *de novo* and is not dependent on the quantity of saccharine matter in the blood, and as also shown by *artificially* introducing sugar into the blood-vessels of a living animal—under which circumstances the saccharine matter is eliminated by the kidneys. It is admitted, however, that "caseine is produced in the mammary glands probably by a catalytic transformation of the albuminoid constituents of the blood." If this be true in regard to this quaternary *proteine* principle, why is the same rule not tenable in regard to ternary proximate principles?

It seems to me that the changes in the uterus and breasts, towards the close of utero-gestation, and in the latter during lactation, may excite the liver to increased glycogenesis by a reflex influence, and the animal sugar thus *naturally* thrown into the circulation, and which under morbid circumstances would be mainly eliminated by the kidneys, as in diabetes, is in this instance chiefly appropriated by the mammæ and made to subserve the important work of aiding in the nutrition of the nursing infant. To sustain this theory, Dr. S. gave an analysis which had been made for him of the blood of a healthy nursing woman, drawn for the purpose. The blood yielded sugar. No saccharine matter was present in the urine.

Dr. S. also cited a case of diabetes occurring in a woman. *Pregnancy* seemed to increase the gravity of the disorder, and to induce a fatal termination of the case. (At a subsequent meeting, Dr. Smith stated that he had since met with an additional reason for supposing that during pregnancy and lactation there was an increased glucæmia, for Fardel states that M. Blot has frequently noted a temporary glycosuria during utero-gestation, and among nursing women. M. Blot, so far as Dr. Smith is aware, has not attributed such phenomenon to the peculiar reflex influence above described, or at least not assigned any use for the glucæmia. The production of sugar under the circumstances designated appears from this statement to be so liberal that a part of the sugar is often eliminated as in diabetes.)

Artificial injuries of different parts of the brain, quite adjacent, have different effects, as has been shown, upon the renal secretion. These effects are characterized—1st, by an excessive diuresis; 2d, by an excessive flow of water containing saccharine matter; and 3d, by the urine being normal in quantity, but loaded with sugar. All these phenomena have their analogues in idiopathic diseased conditions, the first of them corresponding with diabetes insipidus, the second with the ordinary form of diabetes, and the third with cases more occasionally presenting themselves.

After citing a case in which a post-mortem examination revealed disease of the fourth ventricle of the brain, and alluding to other cases in which the lesions were entirely peripheral, Dr. S. continues:—

As we do not recognize any constant hepatic lesion in melituria, as we do recognize cerebral alterations in some cases, and are aware of instances of sugar formation by a reflex influence, the following definition and classification of diabetes is suggested.

Diabetes mellitus, a disease of the nervous system, depending either upon centric or upon eccentric disturbance; by centric implying cerebral lesion, by eccentric referring to peripheral irritation transmitted to the brain and reflected either to the liver or other parts inducing the formation of sugar, and likewise, generally, reflected to the kidneys, exciting excessive diuresis.

Diabetes insipidus, a disease of the nervous system, depending either upon *centric*, or upon *eccentric* disturbance; in this malady the morbid influence, whether reflected or otherwise, being chiefly directed to the kidneys.

Subsequent statements will distinctly show that such definition is not meant to include every case presenting the symptoms of glycosuria. Albuminuria does not necessarily indicate organic disease of the kidneys. The etiology of an important group of cases, however, may be thus satisfactorily explained.

Some such classification of the malady will enable us to distinguish the milder from the graver cases; the curable from the incurable; and qualify us to address our remedies to the removal of the causes of the disor-

der, and thus not fruitlessly waste exertions in temporarily dispelling some prominent symptom.

As illustrative of this point, it may be stated that Dr. Robert T. Edes, in his prize essay on the "physiology and pathology of the sympathetic or ganglionic nervous system," informs us "that Dr. Goolden has admitted every case of epilepsy, paralysis, and chorea that has applied at his hospital (St. Thomas, London), during his week of admission, and not only has he found sugar in a large number of cases, but he has found the sugar to disappear as the symptoms were relieved by treatment."

Can we not, in many cases of diabetes not thus induced, be equally successful in management, if we more closely study their etiology and pathology? In our present state of knowledge it is not always possible to precisely fix the original point of irritation. The liver may, in some instances, be primarily the offending viscus; even impaired function in this organ may disturb the cerebrum, which in turn by a reflex action may augment the hepatic derangement.

I would not confine the primary irritation to the liver only. Glycosuria may follow paroxysms of pertussis and asthma. Where, indeed, can we stop in searching for the initial point of departure from health? The lungs, stomach, bowels, kidneys, skin, and various other parts of the body are so intimately interlinked and so mysteriously connected with the great nervous centre, that irritation in any of them may occasionally be instrumental in inducing the peculiar reflex action to which I have alluded. The diabetes becomes permanent, for the reason that we have failed to detect and remove its cause. In many of these cases, however, the cause is doubtless irremovable, even though recognized.

There is doubtless a group of cases of glycosuria, dependent chiefly upon an error of diet, as *e.g.* an ingestion of too bountiful a supply either of saccharine or of amylaceous materials. Such cases, however, are not those of confirmed diabetes, but since they can be entirely relieved by a *chemical* adjustment of the pabulum, and as permanent melituria can be palliated by similar means, it has been contended that the disease is entirely attributable to some defect of vital chemistry.

Such a view of the pathology of the malady is scarcely consistent with the apparently well established facts which show a relationship between glycosuria and nervous irritation. Nervous excitement will occasionally abruptly change the *chemical* composition of the milk yielded by the nursing mother and render the secretion unsuitable for food. Similar disturbance may either arrest the elaboration or modify the character of the gastric juice; while an analogous influence operating upon the kidneys may induce an elimination differing very essentially from normal urine.

It is thus seen that nervous influences can disturb the operations of vital chemistry, and while the converse of this is also true, nevertheless a weight of testimony indicates that in diabetes, the nervous element of causation has priority in the majority of the confirmed cases of the disease.

The fact is now distinctly recognized that many cases of melituria are remediable. When the malady is dependent upon an organic centric lesion, or upon an organic peripheric change exciting sugar formation by a reflex action, the disorder may prove incurable; when, however, the disease is referable simply to a centric or peripheric irritation, the cause of irritation may be removed and the patient relieved of the glycosuria.

We have seen that temporary or artificial diabetes may follow other conditions besides injuries to the nervous system and a subsistence on hyper-amylaceous diet.

As impeded or imperfect respiration favors a glucæmic condition, the following thought is suggested: a considerable number of patients with diabetes perish from phthisis, or from what is vaguely termed asthenia, which may include chronic pulmonary disease. In some such cases is not the diabetes induced by the reflex irritation of the tuberculosis, even in its early stage? Before attention has been specially directed to the lungs, the melituria may have attracted notice. The hectic fever, finally developed, does not entirely arrest the glycogenesis for the reason that during parts of the day the patients are comparatively exempt from it. The accepted view on this subject is to the effect that phthisis is a malady ordinarily intercurrent to diabetes. While not denying this to be a fact, it may be added as a corollary to what has been before said, that phthisis may be antecedent to and the exciting cause of diabetes.

As preliminary to a further exposition of the subject, it is proper to remark that some physiologists contend that sugar may be formed by other structures than those of the liver, for it is stated that a glycogenic principle can be detected in the muscles and lungs of the fœtus, in the muscles of hybernating animals, and in "limbs paralysed by division of the motor nerves." While not advancing the opinion that the liver is the only sugar-house of the animal economy, it must be apparent, from what has been said, that the phenomena just cited can be satisfactorily explained without seeking further information than we now possess concerning glycogenesis.

It now becomes necessary to attempt to illustrate practically what has been said preliminarily, and to a certain extent theoretically, and in doing so I shall briefly analyze the histories of twenty-six cases of diabetes. Several of these cases have been under my immediate care in private practice, the majority of them have occurred in the New York Hospital, and their histories have been obtained from clinical records, some having been under my charge, others under that of my colleagues or predecessors in the Infirmary. (This table gave the age, occupation, nativity, partial history and cause, duration, results, &c.)

The average age of the patients was 37 years; the youngest 22 years, the oldest 75 years—both of these were somewhat relieved by treatment. All were males. As respects the nativities: 18 were born in the United States; 3 in Ireland; 2 in England; 1 in Scotland; not stated, 2.

Regarding the occupations, there were: sailors 6; laborers and carpenters, each 2; and shoemaker, coachmaker, teacher, moulder, hatter, lawyer, stoker, R.R. master, drover, manufacturer, merchant, physician, and agriculturist, of each 1; not stated, 3.

Of the *duration* of the disease, prior to these cases coming under annotation: in 20 cases the average length of time was about one year and eight months; in four instances the patients were unaware of the precise period they had suffered with the disease; in one case the diabetes manifested itself while the patient was under treatment for chronic diarrhœa, and in one instance the malady was detected on the patient applying for relief from other difficulties. In the 20 cases above cited, the shortest period was three weeks, and the longest between six and seven years.

The result of these 26 cases was as follows: relieved, 15; several of these are recorded as cured; died, 7; remaining *in statu quo*, 4.

Of those only partially relieved, it is safe to assert that several of them were rendered so comfortable that they had simply to conform to the old law laid down about the year 1097, in the "Code of Health of the

School of Salernum," as translated by our distinguished Fellow, Dr. John Ordronaux, viz.:

> "At least six times in every fleeting day,
> Some tribute to the renal function pay."

The means of relief resorted to in the management of these patients have varied, but have been chiefly: meat diet, bran cakes (Camplin), baths, opium, bark, preparations of iron, creasote, cod liver oil, benzoic acid, alkaline salts, mineral waters, aloes, nux vomica, rest from mental labor, travelling, &c.

The data herewith presented are valuable in several particulars, but are not sufficiently extended to show that either age, sex, or occupation predisposes to the disease. In a subsequent table these points will be illustrated in a more extended and satisfactory manner.

In relation to the hereditary transmissibility of diabetes, comparatively few observations have been made. Fardel, Bourchardat, Blumenbach, Isenflamm, Prout, Pavy, Alquié, Mosler, and others, have reported instances in which the disorder has descended from parent to offspring. The latter gentleman was consulted by a peasant, aged 47 years, suffering with the disease, whose parents had both had the malady; and in the course of three months her own son, aged 15 years, fell a victim to the complaint.

The only fact enumerated in the table which has a bearing upon this point relates to cases 22 and 23 respectively. The patients were brothers, one a medical man of New England; their cases were described at length by Dr. Smith.

They do not appear to have derived from their parents any tendency to it; possibly the predisposition descended from an antecedent generation, as may occur with transmitted diathesis.

In examining the causes to which the diabetes was attributed in the cases which have been tabulated, it is noteworthy that there is scarcely one of them which can be regarded as an essential one. Large numbers of persons are constantly exposed to the same conditions without having polyuria as a sequel, and we learn the important fact that diverse irritations may induce the disorder. If the malady was always dependent upon centric lesions, such as were found in the five cases carefully described by Dr. William H. Dickinson, of London (*Lancet*, Feb. 19th, 1870), I feel confident that such alterations in the nervous structure would be manifested by other phenomena than are usually manifested in melituria. Any observations of this medical investigator must receive the highest consideration. The lesions which he has found and which he has so minutely described, indicate that their delineator possesses powers of observation especially fitted for pathological research. The lesions in question are, doubtless, in a number of instances of primary occurrence, while in others they may be of secondary incidence; but whether they are regarded as *prodromata* or *sequelæ*, they are scarcely observed in a proportion of cases sufficiently large to be regarded as *pathognomonic* of diabetes.

The urine voided by diabetic patients, as is well known, is generally of high specific gravity, and is large in quantity. In one instance, the invalid, who was also suffering from chronic diarrhœa, passed at most but six pints, and its specific gravity varied from 1005 to 1009. It was tested on several occasions; "sugar was detected in the first three trials, by the fourth a substance resembling gum." That there was no mistake in the analysis may be inferred from the fact that the examination was made by Prof. Reid. This patient gradually failed, and died 20 days after his admission to the hospital. Several autopsies of adults were here cited, as made in the New York Hospital.

As diabetes is a rare affection in children, it may be interesting to insert at this time an account of a post-mortem of an infant under two years of age, who had died of the malady. The case is reported by Dr. James L. Brown, in the *Am. Jour. of Obstetrics*, May, 1868, and is a case to which allusion will again be made in a subsequent table. Dr. B. says: "A post-mortem examination of the body was made by Dr. Jacobi, who saw the child about two weeks before her death. He found the brain large and well developed, having numerous and deep convolutions. That part of the arachnoid covering the anterior two-thirds of the hemispheres was not perfectly transparent, and there was considerable injection of the dura mater, and in fact of nearly the whole encephalon. There was some thickening of the arachnoid in the fissure of Sylvius, and a few granulations having the appearance of very recent miliary tubercles. The ventricles contained very little fluid and were entirely normal. The choroid plexus contained hundreds of miliary tubercles. On first inspection the lungs presented nothing abnormal, but a closer examination discovered a number of little dots, just visible, which were evidently newly formed tubercles. The spleen was found studded with miliary tubercles, their number and development being much greater here than in any other part of the body. Nothing abnormal was found in the liver or kidneys, except that the right kidney was somewhat larger than the left, and that the cortical substance of the left was more congested than that of the right. These were the only lesions found, and being all of recent origin and obviously secondary to the diabetes, the results of the autopsy, so far as the primary disease was concerned, were entirely negative."

It appears to me that these autopsies confirm the views which have been here expressed in relation to the pathology of diabetes.

Before proceeding to another division of our subject, attention is invited for a few moments to the disorder known as diabetes insipidus. A table is herewith presented of four cases of the malady occurring in the New York Hospital. In scanning the causes assigned for the malady, it is noteworthy how allied they are in character to those given for diabetes mellitus. As all the cases were relieved by treatment and did not manifest any evidences of cerebral disease, it would appear that the disorder did not depend upon any organic cerebral lesion, although it occasionally may be due to such condition.

It will be borne in mind that Bernard has shown that irritation of certain parts of the brain will induce excessive diuresis, but not melituria. If this be a fact, it is presumable, from what has been shown, that diabetes insipidus may be due either, first, to centric irritation, or second, to peripheric irritation transmitted to the brain. In the latter case a morbid influence is reflected to the kidneys as chiefly manifested by hyper secretion.

If we can relieve such cases, are we not warranted in the hope that in melituria, not dependent on an organic lesion, we can detect the points of irritation either centric or peripheric, and by addressing our remedies to such points, subdue the irritation and the general disturbances to which it has given rise?

To the subject of the more immediate causes of death in diabetes, attention is now invited. In determining these I have not thought proper to rely on the limited experience of a few solitary observers, but have had recourse to the Records of the Metropolitan Board of Health of this city for a period extending over three years and three months. It will be remembered that in death certificates both the primary and secondary

causes of decease are required. As the deaths are reported they are systematically entered, but not classified, though a general classification is made at the close of the year. To procure both causes has incurred the necessity of inspecting the individual entries of 80,016 deaths. For aid rendered in this examination I would express indebtedness to Dr. Elisha Harris, Sanitary Superintendent, to his successor, Dr. Moreau Morris, to Mr. John Bowne, Register Clerk of the Board, and to my pupil, Mr. William Oliver Moore.

Out of this large number of deaths, viz., 80,016, but 58 were recorded from diabetes, either as a proximate or remote cause, or, as it may otherwise be stated, but one death in every 1379. As an additional interesting fact, it may be stated that the 58 deaths were reported by 58 different physicians; in not a single instance during the time specified has a medical man reported a second case of death from the disease in question.

Dr. S. here presented a table giving the relative proportion of deaths from diabetes to the total deaths and to the population of each year.

Can the inaptitude of our citizens to the malady be traced to favorable meteorological influences? Our climate favors the development of Bright's disease—is it inimical to melituria? Few reliable data have been gathered in relation to the relative frequency of the disorder in different parts of the world. Fardel states that it is of common occurrence in France, in England, in Northern and Southern Europe, in the Scandinavian territory, in Russia, Spain, Italy, and the French colonies. It appears to be on the increase in France, but Fardel suggests that the disease may be more generally recognized at the present day than heretofore.

The disorder prevails both in tropical and in arctic regions. Of its relative frequency, however, among the inhabitants of these widely separated regions and of intermediate localities, we are still in ignorance. Torrid heat, polar cold and subtile atmospherical conditions may not directly induce, but may *indirectly* provoke the disorder. Facts relating to these points have yet to be gathered, and we have yet to learn whether diabetes has its chosen habitats or whether it smites indiscriminately and alike the people of every nation.

(This table gave the age, sex, condition, occupation, nativity, cause of death, complicating or secondary cause of death, duration of the diabetes, in fifty-eight cases occurring in New York city for three years and three months, as obtained from public records.) In viewing this table it is noteworthy that neither extreme of life is exempt from melituria. The youngest victim had attained an age of but one year and eleven months, while the oldest had reached the ripe period of eighty-five years, five months, and twenty-two days.

The mortality during the several decades of life from twenty to seventy has not varied to any marked extent, but its acme occurred between thirty and forty.

In reference to the disease in early life, Prout, West, and Bouchut speak of its extreme rarity at that period. Hanner has given one case of it in an infant of twelve months. Bird, in his translation of Bouchut, notes the fact that Prout, out of a total of seven hundred cases of diabetes, had met with "but one instance of it in a child five years old, and only twelve in young persons between the ages of eight and twenty."

There seems to be no valid reason why the disease should not prevail during early childhood. It has been already stated that a glycogenic principle can be found in the tissues of the fœtus, but that ordinarily it cannot be detected after the birth of the child. Is it not probable that the malady is occasionally overlooked? In the young infant excessive diuresis may escape the attention of the nurse, and if it attract notice the difficulty in procuring a sufficient quantity of the urine for examination may preclude the recognition of melituria. In the mean time the child is gradually dehydrated, its tissues emaciated, its food undigested, and its death may be attributed to some species of marasmus, as atrophia infantilis, tabes mesenterica, etc., unless some intercurrent acute malady has proved the immediate cause of dissolution.

I would invite special attention to this point, not believing that the disease is of very common occurrence during infancy, but that it may more frequently induce death than we are generally aware. In this city, during the year 1869, more than half the deaths, viz.: 12,859, were of children under five years of age, and of this number 10,311 had not completed their second year. About 500 of these last are recorded under the headings of inanition, debility, and atrophy. As the disorder in question is more liable to be overlooked at this tender period of life than at others, is it not possible that more deaths occur from diabetes among children than appear by the records?

From these statistics and those before given, relating to diabetes as it appears among our own citizens, can be derived many interesting facts appertaining to its etiology, pathology, cause, duration, and termination. The latter table exhibits the disorders liable to become intercurrent, and to hasten an unfavorable issue, and we are thus warned to shield our patients, so far as it is possible, from their invasion.

A final subject which remains for consideration is the management of the disorder. It is manifestly impracticable at this late hour to speak of all the remedies which have either been employed or suggested in the treatment of the malady, and my remarks must chiefly be confined to the philosophical principles which apparently direct a correct plan of therapeusis.

If it is found that the melituria is dependent upon an organic centric lesion, or upon an organic peripheric lesion, we must usually deplore the fact that we are incompetent to avert a fatal termination of the case. At the same time it may be possible to palliate many unfavorable symptoms, and for a season to prolong the life of the patient. If not caused by intercranial or distal lesion, the cerebral irritation or peripheric sources of disturbance may be relieved by treatment. If the irritation is cerebral, spinal, pulmonary, hepatic, intestinal, cutaneous, nephritic, etc., modify and relieve such cause, and remove the diabetic sequel. Is syphilis and are other dyscrasiæ exerting their morbid influences, our remedies are to be addressed to such diseased habits.

The alkaline waters of certain German spas have an enviable reputation in the cure of the disease, but they are by no means specifics. Alkalies appear to possess either a retarding influence upon sugar formation, or the power to cause indirectly the destruction of sugar in the animal economy; it is probable, however, that in addition to any medicinal effect of the mineral waters, the surrounding favorable hygienic influences recuperate diabetic patients in the same manner that they restore ordinary valetudinarians.

In one of the cases coming under my care the patient was very much relieved while availing himself of the hygienic and therapeutical advantages afforded by the German watering places; but on returning to this country it was found that his disease had not been eradicated. He died a few months subsequently from exhaustion, specially induced by gangrene of the foot; the gangrene having been excited by a slight and accidental puncture of the great toe.—*Vide N. Y. Med.*

Journal, *July*, 1870, *p.* 566–67. A species of senile gangrene of the extremities, however, is one of the terminations of diabetes, irrespective of any traumatic cause.

As alkaline preparations are by no means specifics, several questions of interest arise in this connection: in the first place, to what cases are they suited? and in the second place, in what manner do they prove remedial?

If the disease is manifestly due to organic lesions, either centric or peripheric, we can scarcely expect to effect a radical cure by the medicinal agents referred to. Nature, however, is occasionally tolerant of organic changes in important viscera; this phenomenon is particularly noticeable in the disorder which may be denominated the latent form of Bright's disease.

So, also, when there are other structural changes, while the tissues may not be restored to their normal condition, nature can, to a certain extent, accommodate herself to the abnormal condition if the patient is placed under otherwise favorable circumstances. It is in certain of the cases of diabetes dependent upon centric or peripheric irritation that we may hope for a permanent cure from the remedies in question; in others such means can only palliate.

It is difficult to determine in what manner the alkalies prove remedial. Do they prevent sugar formation? They have not the property either of oxidizing or otherwise destroying sugar, though they may indirectly cause its transformation by correcting an undue acidity of the blood. They may behave after this manner—mineral waters, applicable to chronic disorders, generally act more efficiently during the warm months of spring and autumn; in other words, when their action is partially directed to the skin. Under alkaline medication warts may disappear, and various cutaneous disorders be ameliorated. It is well known that carbonic acid and water are eliminated from the cutaneous surface. If mineral waters favor a determination to the skin and favorably affect the capillary circulation, it is presumable that the sugar may be destroyed either in or near the cuticle, and be eliminated as carbonic acid and water, besides otherwise favoring diaphoresis. In health, sugar for the most part disappears from the blood in passing through the lungs; in diabetes, where the patients are placed upon the use of alkalies, the surplus sugar is possibly to a great extent eliminated both directly and indirectly through the skin. This hypothesis is worthy of more extended consideration, and is a rationale which future observations may prove to be correct.

The dietetic method of treatment has its disadvantages as well as its advantages. In the desire to preclude the use of sugar and of ternary proximate principles liable to conversion into sugar in the animal economy, there is danger of relying too exclusively on the quaternary or protein bodies, and of inducing thereby a morbid condition tending to the exhaustion and death of the patient. This misfortune may partially be averted by the ingestion of the oils.

It is not a matter of surprise that so large a proportion of patients suffering with diabetes perish from asthenia and from disorders induced by a low condition of the vital powers. There is a natural tendency in the disease to induce general exhaustion, and when to this cause of depression is added another in the deprivation of proper aliment, dissolution must be expected as a necessary sequence. A judicious employment of a dietetic method of treatment is one of the most potent adjuvants in the management of melituria; an injudicious use of it favors a termination which it is our express purpose to avert.

From what has been said it seems evident that while different cases of diabetes can to a certain extent be treated similarly as respects regimen and diet, there are other particulars of management which must be dissimilar, such diversities being essential in order to overcome the cause and peculiarities of each individual case.

In conclusion, I would repeat that by close scrutiny and skilful care it is possible to detect and correct various morbid irritations and conditions capable of exciting melituria. Some of these may even appear insignificant, and yet may be the occasion of diabetes by a reflex influence. As diabetes affords few opportunities of studying its nature, it seems essential, in order that we can better understand its peculiarities, to closely scrutinize the phenomena presented by each instance of the disease, and to note them for comparison with others.

It has been contended that medical philosophy, though apparently progressive, often moves in a curvilinear direction, and returns in the course of time to the very point from which it received an impetus from an early investigator. On a recent occasion in this Academy, it was stated by the learned Fellow, who is now our honored President, that though medical philosophy occasionally might revolve in a circle, nevertheless in its returning strides it did not touch the point from which it started, but rose to a higher level like the spiral of a screw, and with each revolution it was nearer the summit.

Cullen, in his nosology of 1785, as I have before stated, placed diabetes in the class *neuroses*, and his followers have transplanted it hither and thither, until at the present day, in the classification adopted by the Royal College of Physicians of London, the malady appears among the *general* diseases, while in our own Board of Health it ranks among the *local* disorders.

To-night I have advocated the *restoration* of diabetes to the class of *nervous* affections, as a large proportion of the confirmed cases of melituria appear traceable to neurotic causes. Such conclusion has not been drawn from the imperfect scientific premises which guided the Scotch nosologist of the last century, but has been derived from the more precise truths of modern physiology and pathology. Should such a view prevail, medical philosophy concerning diabetes will have described a circle, but in a spiral orbit, and will have risen to a more elevated position.

Many points relating to the disorder are still obscure, and the difficulties besetting their elucidation are of such magnitude that we cannot immediately surmount them. The views, however, now held respecting the disease, must always be adverted to in the future, and in seeking to attain the exact truth we must hope that the geometrical curve, starting from Cullen, may be continued, and that in our ascent each circle may be shorter in axis and each cycle nearer the apex of finite knowledge.

THE TREATMENT OF

NASO-PHARYNGEAL CATARRH, IN ITS RELATION TO DISEASES OF THE EAR.

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The idea of treatment indicated in the following paper is based upon the general proposition that a large proportion of diseases of the ear proceed originally from an inflammation located in the throat and nasal passages. The throat affections are variously denominated pharyngeal catarrh, naso-pharyngeal catarrh, granular pharyngitis, or a tubal catarrh, which latter extends through the Eustachian tube into the tympanic cavity,

damaging all the parts lying within, often extending to the mastoid cells and labyrinth, and not staying its progress perhaps until the brain itself is reached. As the treatment of the affection is for the most part unavailing when the deeper parts are involved, early interference when only the tubes or tympanic cavities are diseased will be unjustly recommended. This is especially noticeable in those cases of gradually progressing deafness, the origin of which is a cold in the head, with sore throat, becoming chronic, and constantly liable to an accession of inflammation by a fresh cold, with an ultimate increase of the original trouble.

It may be asked why is it that in perhaps twenty cases of inflammation of the upper part of the throat, only one ear-complication may result, apparently furnishing negative evidence of the catarrhal causation of the affection? This is a fact deserving attention, inasmuch as some foreign authorities ignore this causation to a very great extent, and strive to make it apparent that here the ear is treated largely by applications to the throat, while across the water this is certainly not a characteristic phase of the routine treatment. In answer to the question, it may be said, that in those cases which escaped aural complications the inflammation did not happen to involve the region of the Eustachian tubes through a natural limitation to its extension. In a very large proportion of ear-troubles, any careful observer cannot fail to see that an inflamed throat antedated the ear-affection. Examination of the membrana tympani usually exhibits little or no disease, while the patient can often *feel* that the trouble is in the throat and faucial end of the tube.

In a good number of cases the mode of invasion may be accurately determined if observed early; if the inflammation is external, a reddened swollen canal, with an injected membrane and absence of throat-trouble, sufficiently demonstrates the fact; but if with signs of profound ear-trouble, as pain in the ear, tinnitus, deafness, etc., we have few or no symptoms of trouble externally, but *do* find the throat swollen, injected, and more especially on the side of the affected ear, it is fair to infer that the throat is the starting-point of the trouble. In all the exanthematous, febrile, and tuberculous causes of ear-diseases, it is at present for the most part admitted that the condition of the throat gives rise to the ear-complications, and as these causes include the greater number, it is hardly necessary to extend this line of argument. With the exception of two or three books, these general propositions are not admitted more than to a very limited extent. Wilde's excellent work contains only a page or two on throat-deafness, or anything resembling it. It may be asked, Why not treat the tube and tympanic cavity without regard to the condition of the throat? Because the throat trouble in general is at the foundation of the disease, and of course needs removal, and also because of the tendency of a throat trouble to relapse on exposure to cold, which is in a great measure prevented by placing it in an improved condition by treatment. Further, any congestion of the throat, as has been pointed out by Troltsch, and verified by many in this country, is liable to induce more or less hyperæmia of the tympanic cavity, and consequent functional derangement of the hearing.

A relaxation of the tissue of the part causing a too pervious condition of the Eustachian tube, the reverse of what usually obtains, is occasionally seen, in which the lips of the tube fall widely apart, allowing air to be forced into the tympanic cavity on every trifling provocation, as in sneezing, coughing, expiration, etc. It is induced undoubtedly by the atonic condition of the muscles which open and close the tube. A very ordinary symptom, observed doubtless by many, present during an attack of cold in the head, is a crackling sound heard in the affected ear, and unquestionably due to the cause assigned above.

The treatment is: first, prophylactic; second, constitutional; and third, topical.

The first is mainly accomplished by avoiding exposure to cold or harsh winds, selecting an atmosphere congenial to the patient; protection of the body by suitable clothing, winter and summer, which must include flannel or silk undergarments. The harsh mountain air of many parts of New England is a source of irritation to mucous membranes, and mixed sea air seems to act as an irritant, although a sea-voyage is apt to act favorably.

The damp, harsh condition of air, caused some years since by the sprinkling of salt on snow in the streets, was highly conducive to catarrhal affections. A ride in the harsh wintry air of Central Park, New York, has aggravated a pharyngeal catarrh, and immediately diminished the hearing of a patient under the writer's observation, while the air in town produced no unfavorable effect.

Nothing is more to be dreaded than the influence of harsh air on mucous membranes, in ear-patients who "take cold" easily. Sometimes, if the trouble is confined to one nostril more than the other, it may be advisable to plug it with cotton during the night, although patients as a rule should be taught to breathe through the nostrils exclusively.

In very cold weather it will be proper to cover the mouth and nose with a comforter or something of the kind.

Too hot or too cold drinks are often injurious, although gargles of ice-water are sometimes beneficial. Most of the cases of inveterate and incurable otorrhœa in children originate from a scarlatinous sore-throat.

It may be a trivial matter to ask the medical attendant to look after a throat-affection, in view of the life of the patient hanging in the balance; but the precaution is nevertheless not without reason. A vigorous exhibition of vital energy and strength of action often tends more to ward off a threatened catarrh than many other means. I believe it is now admitted that disease generally is more subject to this force than formerly. A hard-worked clergyman, under observation for catarrh of the throat and ears, resulting in deafness and tinnitus aurium, has been more benefited by a few months' rest and attention to habits than by other treatment.

Sedentary habits, especially in hot and badly-ventilated places, should be avoided.

In many of our schools the crowded, unventilated state of the dormitories is undoubtedly conducive to catarrhal affections, especially when we contrast the air within doors with that without, in cold or inclement weather. Abundance of exercise in fresh out-door air acts as a general tonic, equalizes the circulation, thereby preventing a tendency to congestion in a given part, and inducing a greater activity in the cutaneous circulation.

The constitutional treatment consists mainly in measures conducive to improvement of the general health. As struma is so frequently complicated with these affections, it will be seen at a glance that tonics, stimulants, cod liver oil, the most nourishing food, fresh air, exercise, sleep, the avoidance of insalubrious occupations, etc., will be specially indicated. In a confirmed case of catarrh, however, this alone will do comparatively little. If any other diathesis exists, it should be combated. Iodide of potassium in these conditions has maintained a good reputation, and may be of some

service. Later experiences, however, seem to be somewhat opposed to this idea.

Secretions generally should be kept in perfect order, especially the cutaneous. Salt-water bathing is as serviceable as any application to the skin, although occasionally it is not well borne. Electricity may be employed as a tonic. Muriate of ammonia by the stomach has sometimes acted very satisfactorily as an alterative. Cod liver oil probably does as much as any internal agent in this respect. Alcoholic stimulation is occasionally useful, although it is well to remember that congestion of the fauces is often thus produced, and the general tone of the system may be lowered if the liquor be employed longer than absolutely necessary, or when not positively indicated on general principles.

Topical treatment is very appropriately inaugurated by cleansing the naso-pharyngeal space with tepid salt and water (a teaspoonful to the quart), and is a very important matter. A Davidson syringe of soft rubber is undoubtedly the best instrument for this purpose. It should be provided with a nozzle of hard rubber, about six inches in length, the end of which is perforated by numerous holes and bent at right angles, that it may pass readily behind the uvula. Such a contrivance has been devised by the writer, and is made by Otto & Reynders, of New York.

The method of injecting by the nostrils, as practised by Weber, of Berlin (commonly known as Thudichum's method), should be used very cautiously, as several cases are on record of inflammation of the cavity of the tympanum having been induced thereby. Occasionally, water may be accidentally injected into the tympanic cavity by the method recommended here.

Dr. Agnew described a case where water was injected into the tympanic cavity, by the ordinary catarrhal syringe. The requisite gentleness in washing out the nostrils is easily enough attained by the above method. Sometimes a great degree of force is needed to remove masses of impacted mucus, which adhere to the parts with great tenacity. Especially is this the case about the septum of the posterior nares.

Rhinoscopy may be necessary to determine whether the secretion has been wholly removed. Indeed, it is sometimes as difficult to cleanse this part as to remove impacted cerumen from the auditory canal. By this method the patient will be unable to breathe during the act of syringing, as in Weber's method, and may be directed to hold the breath until one, two, or three compressions of the bulb have been made, counting aloud the number so as to give him an idea of the time required.

The same syringe applied to the nostrils may be used, if necessary, after the method of Weber, but in the most careful manner, and may be recommended for the patient's own use, provided that no unpleasantness about the ears is experienced during the operation.

The number of injections per day may be one or two, and rarely more than three. If the proper bound has been passed, symptoms of cold in the head will supervene, as sneezing, a stuffed feeling in the nostrils and frontal sinus and eyes, with a general sensation of irritation about the parts. The remedy should always result in comfort to the patient. This will not be the case if undue force is used in sending water through the parts, especially if by the nostrils, with the stream directed upwards, as it is apt to produce pain in the frontal sinus, and even in the whole head.

The ordinary catarrhal syringe sold in the surgical instrument shops is objectionable. When the piston is sent home, the end of the instrument in the throat will be unavoidably moved, often producing hemorrhage and pain. To obviate this, the nozzle previously suggested may be attached by a flexible rubber tube to the syringe. A spoon or small teapot, or sick-feeder, may also be used to pour the solution into the nostrils while the head is thrown back, allowing the fluid to fall into the throat. Snuffing up the water from the palm of the hand may be useful, but occasionally causes a strangling feeling, and pain in the head. The piece applied to the nostrils should be so blunt as not to pass further than its fleshy portion; otherwise, when we reach the more immovable cartilaginous and osseous parts, the instrument is likely to produce pain. A small camel's-hair brush, or a pledget of cotton wound upon a stick, or a small sponge attached to a whalebone, may be moistened in the solution, and any secretion gently wiped away from the anterior nares. This is specially indicated whenever the secretion is inclined to dry upon the part, producing an irritable and feverish condition.

This procedure certainly helps to unload distended vessels, as well as to act as a gentle stimulant to a torpid circulation. Gargles do no good to the superior pharyngeal space, not reaching it in sufficient quantities. This may be demonstrated by injecting a solution of nitrate of silver behind the uvula, and afterwards water to relieve the unpleasant sensation. This condition will be found to be unaffected by gargles. The warmth of the solution is essential, although cases occasionally present themselves which demand cold applications as surely as a conjunctivitis may. The quantity of water passed through the nostrils is by some thought to be essential; ordinarily, a sufficiency to cleanse the part may suffice, but if other treatment is not borne well, a large injection may unload blood-vessels by a prolongation of its gentle stimulating action, and induce a new and more natural state of the secretions.

The Topical Treatment.—In what has preceded it may be inferred that in most cases of catarrh a deficiency of the "vital energy and strength of action" of the parts exists, requiring as a rule *stimulation*, which probably acts through the vascular system, correcting morbific distributions of blood, and rendering secretion more natural.

At the head of these means undoubtedly stands the nitrate of silver. Older experience in its use has not been disproved by more modern practices. It possesses one property above most remedies of its class, to wit, effectiveness; it is, however, an edged tool requiring the use of skilled hands, as it is otherwise susceptible of doing much mischief. A good rule is to apply it to the parts sufficiently strong to produce a slough of the epithelial layer of the membrane; if the proper substance is destroyed by the cautery, cicatricial degenerations result, in which the muciparous glands are much atrophied, if not entirely destroyed, leaving a truly sclerosed membrane, unsusceptible of again performing functions naturally, and analogous to what is often seen in the granular conjunctiva. If the application is too weak, a disproportion of pain and irritation results, without accomplishing the object. It is difficult to lay down a rule for the strength of the solution. If a 20-gr. sol. is injected behind the uvula, in a thorough manner, as much is done as with a stronger solution, applied less actively. Ordinarily, a 30 to 80 gr. solution may be used. If the catarrhal syringe is employed, a few drops only (two to five) may be placed on any convenient receptacle, and taken up by the syringe, the piston of which is well drawn back, and when the parts are reached, suddenly driving it home, when a spray-like effect is produced. This plan is undoubtedly

superior to the brush or sponge, and approaches somewhat the spray-producer in the quality of its action.

The spray-producer admits of more ready application of a remedy to the parts than other modes; it causes less pain in the injection of a given solution, partly by the dilation of air, and partly, probably, by the suddenness and lack of violence in the mode of application; its aeriform state admits of deeper penetration into cavities difficult of access by fluids; then again, there is not necessarily an excess of the application, which in other methods sometimes is annoying; and exceptionally, it may reach the tympanic cavity, not, it is true, in a condition of spray, but more divided by the admixture of air, than results from other methods. Glass would be the best material from which to construct spray-producers, but that it is too fragile. Metal is too much acted upon to be used, and we are left the hard rubber; this latter is not open to these objections. It is true a less perfect instrument is constructed; but it will, if carefully made, produce a moderately fine spray, at a low air-tension.

The ordinary Politzer bag with a perforation being the best means of producing the necessary power, the thumb or a finger is placed upon the aperture, the instrument applied to the part, and by a sudden compression the spray is produced. Richardson's double-bulbed mode is not adapted to the use of agents liable to stain by falling on the parts not indicated, it being too unmanageable.

An excessively fine spray is only produced by a high atmospheric pressure, requiring more powerful means than the rubber bag. The air-pump and receiver, which is expensive and cumbersome, may be used. Croton water under pressure, or a reservoir of water at the house-top, may do more cheaply in the following manner:—A jug or stout bottle may be used, having a cork perforated in three places, one for the inflowing water, another for the exit of the compressed air, and a third for the drawing off of the water by means of a siphon.

The method by the compressed-air bags undoubtedly will hold the very popular and satisfactory position heretofore maintained. The camel's-hair pencil, for the back wall of the pharynx, is a very good mode of application; but behind the uvula it produces too much violence; for the anterior nares it does very well. The sponge probably is not, on the whole, equal to more modern methods. If any part needs a more profoundly cauterizing effect, the cotton-wool on a small bit of whalebone, with a saturated solution of nitrate of silver, nitric acid, saturated tr. iodine, or chromic acid, may be the best method. Granulations and ulcerated places, or occasional spots of more intense redness, or the site of polypi, may require to be treated in this manner.

A few agents may be used in substance, as alum or sulphate of copper, attached to an appropriate holder and passed behind the uvula, touching if need be the mouths of the Eustachian tubes.

Similar agents may be used to those appropriate to the treatment of granular conjunctivitis. The frequency of the applications depends upon the activity of the part. If the epithelium is thrown off in twelve hours, and a new formation results, the application may be repeated. Perhaps the best rule can come no nearer than every one, two, or three days. A second application certainly should not be made until all the unpleasant effects of the first have passed away.

Very often an intelligent patient will feel the need of another application about as soon as necessary. If after an application the part continues to feel disagreeably, it is evident that the agent has done harm rather than good, the epithelial layer of the mucous membrane, perhaps, failing to be properly restored.

A few patients have insisted that one application of the nitrate of silver has rendered the throat worse for months afterward; this, however, must be accepted with allowance.

A patient under observation was not benefited by any means of treatment, so far as could be judged. The reactive power seemed to be absolutely nil. The rule, however, undoubtedly is, that treatment benefits the average of cases more than in granular conjunctivitis, and nearly to the same extent as in diseases in general.

The duration of treatment is usually from a few months to a year or two. Occasionally, one or two applications will relieve an old case in a most astonishing manner. A patient, the wife of a physician, was cured of a very excessive and watery discharge from the nostrils by one application of nitrate of silver. It is more than a year since, and no relapse has resulted. In one case nitrate of silver irritated more, with about the same relief afforded as a solution of carbolic acid, ℥j to the pint of water. The latter should never be used strong enough to produce a prolonged sensation of dryness or of excessive irritation. It smarts sharply for a few minutes, and soon subsides; its smell is the main objection to its use.

Sulphate of copper occasionally does well, but it is more of an astringent and less a stimulant than some remedies. Alum is valuable, used in strong solution, even to saturation, if borne, or in substance; but often it is inefficient. A patient, thirty-five years of age, having a catarrh of twenty years' standing, was relieved of a profuse watery discharge by injections of a saturated solution of alum twice a day into the nostrils, which had previously resisted nitrate of silver. Tannic acid has not proved as serviceable under the present observation as might have been expected from its well-known reputation in granular eyelids.

The glycerine so frequently used as a solvent is sometimes irritating, and may be discarded, although something of the kind is often useful to keep the nostrils from becoming too dry. For this purpose the ointment of rose-water may be advised.

Tincture of iodine, diluted, and injected in considerable quantities, or in saturation less freely applied, is often of great service. It is not astringent, and theoretically produces the alterative effect so much desired. Some patients, however, will not bear it well.

One case of moderate catarrh, in which the trouble was mostly located near the posterior nares on the floor of the fossa, was relieved by applying to the part, by means of a bit of cotton on a whalebone, a saturated solution of iodine and tannin in alcohol.

Muriate of ammonia by the three-bottle method, as suggested by books on the ear, is a harmless remedy, although not very potent.

The third bottle, in which the agent is formed, is directed generally to be partially filled with water. This is embarrassing, as regurgitation sometimes ensues, greatly to the annoyance of the operator; and it is not necessary, as the muriate forms pure enough for our purpose without it. The application of the remedy may be made directly to the nostrils, passing into one and out at the other, or by the faucial tube through the nares; or a smaller tube may be attached to an Eustachian catheter. By Politzer's plan, however, the agent may readily pass into the middle ear, at the same time medicating the nose and throat. This is one of the few successful methods by which agents are injected into the middle ear. It may be useful to add that the muriatic acid should be of full strength, the bottle filled

to nearly one-half its capacity, and that the aqua ammoniæ should be much diluted and less in volume than the acid. By a little experimenting the proportions are adjusted so that muriate of ammonia may be formed without excess of ammonia or of acid.

This agent is mild in its effects, and may be injected with great freedom, even into the cavity. A warm and slightly irritated sensation only is the result of several minutes of injection. It occasionally is useful in tinnitus aurium.

Vapor of warm water, or steam with admixture of air, is a remedy of considerable value. It is held by some that inasmuch as it represents moist warmth, it is serviceable in sclerosed conditions of the mucous membrane lining the drum cavity and reflected upon its contents.

It certainly is beneficial in some of the old cases of deafness dependent on a general catarrhal condition of the parts, including the pharyngeal space. Undoubtedly it is a valuable stimulant in catarrhal complaints generally. It is conceded to be effective in croupous difficulties, when the subduing of an inflammation of a mucous membrane is certainly called for. It has often opened an impervious Eustachian tube, and occasionally, if the remedy is pushed, it will produce so much irritation and hyperæmia as to close it temporarily. A good apparatus for this work is one in use at the Manhattan Eye and Ear Hospital, constructed of tin, at the suggestion of the writer. A glass flask is too liable to break. The steam may be used every day or two, three to six minutes being occupied at each sitting. A hard rubber catheter and a catheter-holder are needed to make the application.

The offensive smell of a catarrh patient, especially when ozena is present, may need a word. Many times, it is true, dead bone exists as a cause of the fetid smell, but frequently this is not the case. Decomposed secretions certainly have a foul smell, and in some cases, especially when the discharge is profuse and watery, with a pale and relaxed membrane, the fetid odor is well pronounced, without the presence of dead bone as a causation. To correct this the carbolic acid, liq. sod. chlo., or permanganate of potass. are usually used. Some cases under observation have been relieved of the bad odor by nitrate of silver and the salt-and-water wash only.

Of the means more especially used to open an impervious tube, the nitrate of silver, strength of forty or eighty grains to the ounce, applied to the mouth of the tube by means of an Eustachian catheter, is perhaps the best. It may be used in the following manner:—The end of the catheter containing the ring should be supplied with a thimble-shaped piece of rubber, similar to that used on the atropine-dropper; the beak of the instrument is immersed in the solution, and one or several drops may be drawn up, the end freed from excess of solution by wiping on blotting-paper, then passed up to the E-tube, or perhaps a little way within, and the contents discharged. Or, after loading the instrument, a bit of cotton may be wound upon the end, and when introduced the thimble-shaped bulb may be slightly pressed, so as to moisten the cotton, when a swab is extemporised, and being exactly in position the remedy is readily applied. The hard rubber spray-producer may be provided with a beak of extra length, so as to exactly reach the tube; but this plan is undoubtedly less effective than the former. Irritating the mouth of the tube by means of a catheter thrust somewhat harshly against or into it, is a good temporary measure, and probably explains why Politzer's plan often succeeds after a catheterization, when both had previously failed. The sulphate of copper in substance passed behind the uvula against the tube is very effective.

How far the foregoing plan of treatment is susceptible of affording relief may be determined pretty accurately. If the hearing distance is increased by inflating the tympanic cavity, it is a proof of an insufficiently pervious tube, and that the same may be rendered permanently normal or nearly so, provided treatment be sufficiently persevered in. Relapses will undoubtedly occur from exposure to cold, but in the end a good degree of success may be attained. If there is no improvement to the hearing from inflation, it cannot certainly be stated that treatment will add to the hearing, although the hyperæmia of the tympanic cavity and of the more superficial parts of the nerve may be lessened, and the hearing improved. This last point is not dwelt upon, as the proposition is well-nigh proven by experiment to be correct. It seems to the writer that there is no doubt but that the nitrate of silver applied to the mouth of the Eustachian tube produces a powerful impression upon the tympanic cavity itself. Catarrhal affections of the nasal duct have been relieved by similar treatment of its inferior extremity, proving this thing possible. Even if no improvement to the hearing is obtainable, treatment may often be recommended to prevent further development of the disease, which so frequently results, and which may be measurably hindered. We may hope to cure tinnitus aurium also, either by the inflation of the tympanic cavity, thereby relieving deeper parts from pressure, the results of a collapsed membrana tympani, or by diminishing the hyperæmia by the means previously referred to; but the latter symptom in old cases very frequently resists treatment. In one case the hearing distance was gradually increased as a result of inflation, and accompanied by a tearing sensation in the ear, as though adhesions between the drum-membrane and inner wall of the cavity had been ruptured in the operation. Another case resisted treatment in one ear, although inflated daily for several weeks, when suddenly the hearing was more than doubled. In this case also perhaps an adhesion was ruptured.

It may be pertinent to remark here that inflation may be overdone. It will be safe to direct the patient to inflate whenever the hearing is not at its maximum, and to desist when that is reached.

Experiments with Seigel's otoscope, in a healthy ear, demonstrated that although the drum-membrane may be drawn outwards, it immediately flies back whenever the force is removed, showing that a certain amount of resiliency exists. This may be destroyed by too much inflation, preventing the firm holding of the ossicula against the vestibule. One of the last subjects touched upon by the late Mr. Toynbee was the *modus operandi* of improvement to hearing by the artificial membrane, which, in his opinion, involved this idea—that the ossicula were not in absolute contact at their articulations, thus disturbing the medium for conducting sound, and that the pressure inwards of the drum restored this solution of continuity. Quite likely the diminution to hearing by inflating a normal ear may be thus explained.

Substitute for Quinine.—It is stated, in the *Lancet*, that M. Pavia, of Italy, has produced an alkaloid from the leaves and roots of boxwood, which he calls Bussine. In the experience of several Italian physicians this substance has been found to possess virtues nearly equal to quinine, in the treatment of miasmatic fevers. In several cases gastric uneasiness, pyrosis, thirst, nausea, giddiness, and tinnitus aurium, were attributed to the use of this remedy.

THE RADICAL CURE OF FISTULA IN ANO WITHOUT THE KNIFE.

By EDWARD C. HUSE, M.D.,

ROCKFORD, ILLS.

A prompt and successful result, in several cases of anal fistule treated by injection of iodine, has induced me to call attention to this subject in the Record.

While disclaiming, of course, any originality for this *plan* of treatment, the *manner* in which I have employed it is probably somewhat new. At all events, it has thus far been entirely and permanently successful in my hands; and the suggestions of M. Henry, assistant to M. Bonnafont, as long ago as 1858, on this subject, seem to have met with undeserved neglect.

The iodine should be employed in the form of a *saturated ethereal* tincture. Its advantages over the officinal or alcoholic tincture are obvious. It is not only *stronger*, and thereby excites inflammatory adhesion in the walls of the tube, but the ether evaporates almost momentarily, and a pure coating of iodine is left along the fistulous track, which doubtless encourages absorption.

The instrument I have used is an ordinary hypodermic syringe, with small silver canula, which may be readily bent to correspond with the direction of the sinus.

The mode of operation is as follows:—After exploring the fistula with a *very small* probe (the ordinary probe of the pocket-case is far too large), after determining its course and extent, the patient is to be placed in a good light and a glass rectal speculum introduced, with its fenestrum opposite the internal orifice of the fistula. The canula is now bent to the required curvature and introduced, when the syringe, filled with tepid water, is screwed on, and the surface thoroughly cleansed of all extraneous matter. This step is not only essential, but serves to allay timidity, or dread of the subsequent operation.

Next, by pressure, the fistula in its whole extent should be dried out, and the iodine will thus come in direct contact with its walls. Introduce now into the speculum a quantity of carded cotton. This will absorb any of the iodine which might otherwise be injected *through* and injure the mucous membrane, and by its characteristic stain will serve to show the completeness both of the fistula and of the operation.

The canula may now be re-inserted and the injection made. It should be done *slowly*, and at the same time the canula gradually withdrawn. Every part of the surface will thereby be reached.

The operation, which is not very painful, should be premised with a cathartic and followed with a full anodyne, as ordinarily with the time-honored knife method. The patient need not be confined to his bed, or room, even for an hour.

Thus far I have performed this operation four times, and, as remarked above, with immediate and complete success. The patients were, all but one, below thirty years old. One was tuberculous, but no appreciable injury accrued from thus checking what we were once told is in phthisis a conservative drain. In my first case, a clerk, æt. 23, there was a dense and almost cartilaginous state of the fistulous wall, and the injection had to be repeated; but in the others one "sitting" alone was called for.

A Remedy for Ringworm.—Von Erlach and Sucke recommend spirits of turpentine, brushed over the surface, as a remedy for common ringworm.—*Journal of Cutaneous Medicine.*

Progress of Medical Science.

The Poisonous Dose of Chloral.—Dr. Richardson says of hydrate of chloral: "The largest dose I have known to be taken is one hundred and twenty grains. This dose produced a prolonged and dangerous coma, but recovery ultimately followed. I think we may consider a hundred and twenty grains, as a maximum dose for an adult, dangerous, but not of necessity fatal. Beyond a hundred and twenty grains the danger increases, and a hundred and eighty grains may be considered a dose that would prove, in the majority of cases, positively fatal."

Calabar Bean in Constipation.—Dr. Victor Subbotiu (*Arch. f. Klin. Medicin*, vi., 2, 3, 1869) communicates cases in which he obtained remarkably good results from this remedy. He prescribed a solution of the extract in glycerine, one to thirty, the dose being four drops four times daily. A fecal tumor which resisted strong doses of a cathartic was quickly dispelled in this way. The cases in which the treatment is most suitable are those due to atony of the muscular coat of the bowels, on which the Calabar extract acts powerfully, as is shown by experiments on animals.

A Woman with Four Breasts.—A primiparous woman was admitted under M. Lorain, and was delivered next day of a dead premature child. She was found to have four breasts, two in the normal position, and with the normal puerperal appearances, and two which, from their position, might be called axillary, and attaining the size of a small orange. She menstruated at twelve, and at the periods she experienced pain in the small breasts. The colostrum also which these contained was small in quantity, and the granular bodies were less and transparent, while the milk globules were fewer. The areolæ were also very small. In spite of an attack of fever, the lacteal secretion was regularly established in all the breasts, but the milk examined microscopically was found of a much poorer quality in the supplementary breasts.—*Revue Photographique des Hôpitaux.*

Intracisor Forceps for Arteries, to Supersede the Ligature.—Considerable interest has been recently manifested by American surgeons in finding substitutes for the traditional, well-tried silk ligature for the closure of arteries. The N. Y. State Medical Society, in 1869, awarded the "Merritt H. Cash" prize for a Practical Treatise on Acupressure. The American Medical Association awarded a prize last year to the author of an essay on the closure of arteries by a "Constricting Silver Ligature;" and at the recent meeting of the State Med. Society, the "Cash" prize was awarded for an essay on the use of an "Artery Constrictor," by which it is proposed to close arteries by dividing and invaginating the internal coats without injuring the external. The interest manifested in this subject induces us to reproduce (from the *Lond. Med. Times and Gazette, Feb.* 12, 1870, *p.* 189) the account of another instrument which is also designed as a substitute for the ligature.

"We are able to place before our readers the engraving of the Intracisor, invented by Mr. Webber, and made by Messrs. Maw, for the purpose of securing all the advantage of the ordinary ligature without entailing any of its strangulating consequences or its inconvenience—as a foreign body left in a wound which it is desirable to heal quickly. Among its recommendations are, it seems, the small wound necessary in exposing the vessel to be operated upon; the facility

with which the lower blade can be passed under, and made to isolate the vessel from its contiguous tissues; and the complete circumferential division of its inner friable lining, accomplished without interfering with its outer coat when bringing the two blades into close apposition. We have witnessed the effect of the intracisor on a dead artery; nothing can be more perfect."

Case of Threatened Suffocation from Infiltration of the Uvula.—Dr. Waldburg H. Coleman, of Trenton, N. J., sends us the following:—

William Pierson, aged 30, who had frequent attacks of gastritis, sent for me in a great hurry April 16th, at 3 A.M., with word that he was suffocating from some obstruction in the throat, which had come on in an attempt to vomit.

His symptoms were: countenance very anxious, eyes protruding, almost complete aphonia, lips of good color, frequent pulse, and, on first seeing him, breathing normal. While watching him, he was suddenly seized with a paroxysm of suffocation. His head was thrown forward upon the chest, body stretched partly out of bed, knees elevated, voice completely gone, frequent retchings of frothy mucus, with blueness of the face and extremities. Instant death seemed inevitable. I put my finger down his throat, but could find nothing abnormal in the œsophagus; the epiglottis was not infiltrated or inflamed; in fact there was nothing detected to indicate any serious obstruction. I then passed the stomach tube downward into the stomach; it went freely and smoothly. His strugglings were so severe that my fingers were badly bitten.

I now examined his throat with a light, and, on depressing the tongue at its base, found the uvula enormously elongated, extending down the pharynx. The lower extremity was nothing more than a membranous sac filled with serum, which curled round and irritated the epiglottis. Its length was such, that when drawn forward it reached beyond the lower incisor teeth. At the upper part of this sac, which was the uvula proper, there was a constriction. I seized the lower part with the forceps and cut it off below the point just mentioned. All his difficulty at once subsided, and when I left he was perfectly composed.

I saw him the next morning; at the place of stricture there was a slight slough of a small fragment that remained below. The uvula soon healed, and he has had no further trouble.

Embolismic Origin of Tuberculosis.—Dr. E. G. Janeway, of N. Y., writes:—Recently in examining the pia mater in a case of tuburculous meningitis, I encountered a small artery one-thousandth part of an inch in diameter, containing an embolus smaller than the calibre of the vessel, loose in its channel, and about one five-hundredth part of an inch in length. It was made up of shrivelled and closely packed cells with fatty granules. The cellular nature was apparent at the sides and extremities, and was partly open to red blood globules. There was no obstruction of the larger arteries by thrombus. The lungs contained cavities and were in a state of fibrous induration. This is simply an isolated fact; but in view of the supposed embolismic origin of tuberculosis is of some importance, and may serve to make other observers investigate the condition of the small arteries more carefully in cases of tuberculosis.

New Method of Determining the Presence of Albumen.—Mynott Tidy recommends, for determining the presence of a small quantity of albumen, the use of phenic acid. Equal volumes acetic and phenic acids are mixed. Observe if the addition of a drop of this mixture to water produces a precipitate; if not, the mixture can be employed to discover albumen; if, on the contrary, the test succeeds, add to the liquid acetic acid until it no longer renders water turbid. This reagent will demonstrate the existence of albumen in fifteen thousand times its volume of water, while nitric acid ceases to show albumen when it is diluted eight thousand times.—*New York Medical Journal.*

Absorption of Mercury through Animal Membranes.—Doctor Rindfleisch, of Bonn, has been making experiments on rabbits with reference to the passage of mercurial ointment through the skin, mucous, and serous membranes, with negative results. The ointment was rubbed for some time on the inner surface of the ear, and a subsequent microscopic examination could not detect that a particle of the mercury had penetrated the epidermis, the sub-cutaneous network of vessels being entirely free from it. A quantity of the ointment was retained in contact with the conjunctival mucous membrane by sewing the eyelids together, and no mercury passed through the conjunctiva. The ointment was then administered with their food, producing inflammation and ulceration of the intestinal mucous membrane; and in the mesenteric glands corresponding to the ulcerated portion of the intestine, were found particles of the mercury, but none could be discovered in either the blood, liver, lungs, kidneys, spleen, brain, or bones. Small pieces of the ointment were placed in the peritoneal cavity, and the results were again negative. A few particles were found in the lymphatics of the diaphragm, but only there.

The doctor, therefore, concludes that quicksilver contained in blue ointment passes neither through the skin, mucous, nor serous membranes, so long as they are sound, but may be introduced through open lymphatics and the bases of phagedenic ulcers.—*London Med. Press and Circular.*

Death from Chloroform.—In an article in the January number of Braithwaite's Retrospect, by Dr. B. W. Richardson, on "Death from Chloroform," he describes four modes by which it occurs, as follows:—In the first, by the immediate influence exerted by the chloroform on the peripheral nervous system, respiration is for an interval suspended, there is accumulation of carbonic acid in the blood, irritation of the vagus, and consequent arrest of the action of the heart. Artificial respiration offers the best chance of recovery in this form of death, because the irritability of the heart is unimpaired. Nervous and irritable people are the ones subject to this form. The second mode of death may be called epileptiform syncope: it is instantaneous, and we find the arteries completely emptied of blood, and the brain blanched and bloodless. This form of death occurs during the second stage, or that of excitement. The third form of death occurs when, from the slow and continued action of the narcotic, there is paralysis of the heart. This form of death is hopeless; artificial respiration has no effect on it. It is always preceded by intermittent action of the heart. The fourth form of death is a compound one—there is first depression of the nervous system from chloroform, and then surgical shock is superadded. Hæmorrhage may have aided the exhaustion of the system. Death here is by syncope, and is often sudden. It is very liable to occur from the error of supposing that in small operations it is only necessary to administer a little narcotic vapor; and, secondly, from proceeding to operate while the patient is excited, but not insensible.

Dental Colleges.—There are nine reputable Dental Colleges in the United States.

The Medical Record.

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PROFESSIONAL LAMPOONERY.

One of the Brooklyn daily papers has recently favored its readers with a leading article on "The low tone and feeble state of medical literature." In this effusion some statements are made concerning the state of medical literature in this country which, unfortunately for the profession, contain many truths. The scarcity of medical writers, and the paucity of good medical journals is deplored, and the necessity of a remedy urged. But this, after all, is an old story, and coming as it does from the secular press, would not be worthy of any special notice, were it not written for another purpose than the real good of the profession. Physicians are not accustomed to look to the daily papers for any sound or disinterested advice in matters pertaining to their professional advancement, neither are they likely to heed it when gratuitously offered. Writers for the secular journals have never as a rule been friendly to legitimate medicine; and so firmly has this conviction been forced upon medical men, that they have a right to consider suggestions and advice from these outsiders as not only presumptuous but insulting. We have a fancy for drinking our water from a clean cup. Experience has shown us that all sensational articles concerning the ignorance, want of energy, proper working spirit in the profession, etc., etc., are written with some special object, and the one in question, as we have before intimated, is in this respect no exception to the rule.

The feeble state of medical literature is spoken of in the article in question in a general way, in order to offer an excuse for some remarks on the utility of prizes as stimulants for literary effort, and then the main object of the writer is made apparent from the following remarks which we quote:—

"Even the prizes are ineffective. For instance, the Cash prize of the State Medical Society of New York is open to all the thousands of doctors in this Commonwealth, and intended as it is to take in the whole question of surgical discoveries, ought to call forth at least hundreds of essays from doctors supposed to be devoting all their powers and time to the elucidation of questions, and to the production of appliances calculated to develop and perfect that supreme science for the saving of life and suffering. The facts are, that at the late meeting of the State Society at Albany only two essays were filed for that prize; one was not unoriginal, or weak, but was so absolutely ungrammatical as to be ruled out of all examination as to its intrinsic merits, and the other bore off the prize without any virtual competition."

Any one who reads the foregoing paragraph must be convinced of the fact that a deliberate attempt is made to cheat the recipient of the prize of the honor which he merits. The attack on its face is transparent, diabolical, and mean, and bears evidence of the malignant jealousy of a petty soul. But these are not the worst of its features, for the circumstances which surround the case, and the facts referred to in the body of the article, betray the writer to be a medical man. We blush to think that any one who bears the name of a physician should so far stoop below his manhood to thus sneakingly lampoon a brother before an audience of outsiders. For the sake of the honor of the profession we hope we are mistaken.

Every pains is taken to show that there was virtually no competition for the prize, but we fail to see why this should detract from the value of the essay to which the said prize was awarded. The responsibility of its bestowal belongs to the Committee on Prize Essays. This committee is bound in honor to rule out every essay presented, and award no prize whatever if in its opinion none are worthy. But this was not the case with the essay in question, as we shall be happy to prove to the satisfaction of our readers by its publication in full in a future number. We believe in the principle that when any one wins distinction by honest worth he should have it, no matter who he is, and that no one from envy or malice should be allowed to assail his rights without being brought to account. If the writer of that newspaper criticism ever tried for any prize in life and was defeated let him take courage and try again; let him strive to win in the race by fair running, but not by endeavoring to trip up the one who is outstripping him.

Two gentlemen are spoken of in connection with the State Society at Albany, as being the only ones who presented any papers of real worth, leaving the reader to infer that except for these the meeting would have been a failure. Now, the truth is, there were a greater number of really good papers presented at this meeting than at any other for the past five years. We should like to know if the author of the article is willing and able to prove to the satisfaction of the profession, that the papers presented by Emmet, Agnew, Bozeman, Jewett, Sayre, E. R. Hun, and J. G. Richardson, the Annual Address of Vanderpoel, the lecture of Noyes, and the remarks of Squire and others, gave evidences of "the prevalent intellectual dry-rot." Dr. Squibb, of Brooklyn, and Dr. J. P.

Gray, of Utica, are the gentlemen particularly mentioned by the writer; both presented papers worthy of their reputatious, both are deserving of every encomium, but they have the misfortune in this instance of being sacrificed on the altar of expediency.

In a recent number, while commenting on the proceedings of the State Medical Society, we took occasion to refer to a manifestation of ill-feeling between certain medical gentlemen in Albany. Our impression then was that the cause of the trouble was based upon college difficulties, and we so stated it. It now appears to us, from facts which have since come to our knowledge, that we were so far in error. We are pleased to learn that none of the profession of Albany have taken any stand against the College as such, and that none desire to have it so considered by the profession. It is true several of the best known and most respected medical gentlemen of Albany have resigned their positions as members of the faculty of that institution, but they have done it simply as the result of a conscientious conviction that the other members of the board have failed to properly appreciate the duties and responsibilities incident to their positions. Although now disconnected with the school, they still have its best interests at heart, and are, in spite of differences of opinion with the present faculty, unwilling to have a contrary impression entertained. This is certainly the proper spirit, and commends itself to the good judgment of every unprejudiced person. The majority of the profession of Albany recognize and appreciate the cause for the resignations, a fact which admits of but one interpretation. So much then for the medical school question.

The facts also recently brought to our notice upon which the discussion before the Society was based, are worthy of some consideration. A member of the publishing committee complains of typographical errors in a recent volume of the Transactions containing the annual address of another member of the same committee, and makes this complaint an excuse to criticise the character of the quotations made in the said address, the spelling of certain words, the grammatical construction of certain sentences, covertly charging the whole upon the proof-reader, and ending with a motion to appoint an experienced reader.

When we learn that the reasons for these mistakes and misprints had been previously explained to the attacking party by the gentleman attacked, we are forced to allow that a simple act of justice rendered the administration of a severe rebuke necessary. In conclusion we simply recall to the minds of our readers that the motion was deservedly tabled.

The discussions concerning the expediency of licensing prostitution have brought to the surface many facts of interest to the social economist. It has been shown that in countries where the licensing system is as perfect as direct legislation can make it, there is not such a decrease in venereal disease as one might be led to expect. Not only is there danger of the propagation of these maladies through the means of the licensed inmates of houses of prostitution, but more especially, and in a very large majority of cases, by clandestine prostitution, which no registry law can reach. But there is another side of this question, which is seldom referred to, but which in reality is the most important of all for consideration. It is the control of the male portion of the prostitutes. Many suggestions have been offered to solve this problem; some of them have been more or less practical, some chimerical, and others ridiculous; partaking of all three of these elements are the suggestions of "a victim to the social evil," as offered in a Rochester paper.

She proposes that policemen be stationed at each house where the "evil" resides, with orders that no man shall be allowed to come in without delivering a pass from a magistrate. The magistrate is to issue passes only to men who present a surgeon's certificate of their recent examination and freedom from disease; and is to keep a record of the passes issued in a book, open to public inspection. To the objection that the publicity of such a record might occasion some trouble in families, as well as to all other objections, she urges the evident fairness of the system, as compared with the regulations proposed, and its equal certainty of effecting good sanitary results.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, February 13, 1871.

Dr. Abram Jacobi, President, in the Chair.

The President announced the admission to membership of Drs. Eugene Peugnet, William R. Fisher, Frederick E. Schwedler, George B. Pomeroy, Stephen M. Roberts, Daniel D. W. Harrington, J. Theus Taylor, Rudolf Tauszky, and Mary E. Greene.

The Report of the Committee on Intelligence was read by Dr. Castle, and that of the Committee on Meteorology by Dr. Goodwillie.

DECEASED MEMBERS—DR. BENJAMIN DRAKE.

Dr. Van Kleek remarked that, since the Society had last met, death had been busy in its ranks. In one short month, no less than four of its members, including two former Presidents, and its trusted and highly valued Treasurer, had been called from their labors to their reward. Of one of these, whom he had intimately known, he had, at the request of the secretary, prepared a brief sketch.

Dr. Benjamin Drake, a former President of the Society, died at his residence in this city, January 11th, 1871. He was the third son of John Drake, a successful merchant, and was born in New York, February 14, 1805. He early manifested decided literary and scien-

tific tastes, and his condition in life was happily such as to enable him to cultivate and gratify them. He graduated with honor in Arts, at Columbia College in 1825, and in Medicine at the College of Physicians and Surgeons three years later. After two years of hospital study in Europe, he began practice in Chambers street, removing subsequently to the Bowery, and to East Broadway. He remained unmarried, but none the less exercised a liberal hospitality.

Joining this Society in 1832, he was its President in 1848 and '49. In 1853, he was elected permanent member of the State Society. He took a prominent part in organizing the Academy of Medicine, and in this, as in the County Society, he was an active member. He was for several years an attending surgeon at the New York Ophthalmic Hospital (now discontinued); and afterwards gave much attention to the Eastern Dispensary, especially its vaccine department. At one time he entered ardently into political life, though never seeking political preferment, and was a devoted champion of Henry Clay.

Dr. Drake's attainments were those of a man of wide and varied culture—indeed, the speaker had rarely known a man who knew so much of almost everything; and in the circle in which they both moved thirty years ago he was esteemed the Admirable Crichton of his day. Skilled in botany, he gave much time to the culture of flowers, of which he was an enthusiastic lover. To natural history and to comparative anatomy and pathology he gave much study, making free use of the facilities and the material afforded by the menagerie near his residence. He was said to have at one time the most extensive collection of skulls, human and others, in the country.

The Doctor was a man of medium height, but of commanding presence. In conversation or debate he had a ready command of language, remarkable rather for its force and compactness than for its ornateness. Toward the close of his life, failing health and frequent disappointments, acting on a temperament extremely nervous, had rendered him somewhat reserved in general society, and some thought had made him misanthropic. But those who knew him knew that he had a warm heart, and loved to do good to all who came within the circle of its affections.

It was voted that Dr. Van Kleek's biographical sketch of Dr. Drake be placed on file in the archives of the Society; and, on motion, the Chair appointed Dr. Van Kleek a Committee to prepare suitable resolutions upon the subject.

DR. WILLIAM B. BIBBINS.

The Secretary announced the death of the Treasurer, Dr. William B. Bibbins, and read the proceedings of the joint and special meeting of this Society and the New York Academy of Medicine, touching the matter, which appeared in the Record of February 1st., ult. (vol. v., p. 552).

Dr. Ellsworth Eliot moved that the minutes just read be accepted, and that the resolutions comprised in them be adopted as the sense of the Society. He added:

Perhaps it is right that I should say a few words with reference to the memory of our deceased friend. I think his name stands, in the record of our organization, immediately before my own. He was very early called to positions of honor and responsibility in this Society; and with what fidelity and efficiency he always discharged the duties that still continued to be thrust upon him, we are all too familiar for me to dwell upon them.

Few members of the profession had so thoroughly prepared themselves for all its duties as Dr. Bibbins. After a course at Yale College, he attended medical lectures in this very building, receiving the diploma of the College of Physicians and Surgeons. He then devoted several years to hospital service, as *interne* of the Bellevue Hospital and of the Nursery Hospital on Randall's Island. After this he was for more than ten years one of the visiting physicians to the Demilt Dispensary. The knowledge and skill acquired in these various positions were turned to good account in a large practice, and they inured to the benefit of those who are too often compelled to forego them; for Dr. Bibbins did much service among the poor.

It is a wide place which his death has made vacant. I know of no one dear to a larger number of friends; of no one to whom more persons were under greater obligations for favors conferred. For he was always ready to help by his advice or by his work, and often at great personal sacrifice. He has died in the heyday of life. But a year ago, Dr. George T. Elliot, Dr. Bibbins, and myself were together in the Comitia Minora, and their prospect of a ripe old age seemed far better than that of most of us. But they have gone from their spheres of usefulness; the places which have known them shall know them no more; yet none here can doubt that their memory will remain green while one of those whose lot they have brightened shall live to cherish it.

The motion of Dr. Eliot was carried.

DR. GEORGE T. ELLIOT.

Dr. Fordyce Barker.—In common with all present, I heartily sympathize with the sentiments to which my friend (Dr. Ellsworth Eliot) has just given utterance in relation to the loss which the medical profession, this Society, and the public have sustained by the death of Doctor Bibbins.

It also becomes my duty to announce the death of our late President, Dr. George T. Elliot; and it may be permitted to me, who long held most intimate personal, professional, and collegiate relations with him, to add a few commemorative words as a tribute to one whose memory will long be cherished with the warmest affection by those who had the privilege of enjoying his personal friendship, and with high esteem and great respect by all those who love our noble profession, and who honor those honest and zealous workers in it who have contributed something to its improvement in practice and its progress in science—for Geo. T. Elliot was one of this class.

Here, where he was so well known, it is unnecessary for me to speak of the zeal and ardor with which he cultivated those talents with which he was originally endowed—not from mere personal ambition and for selfish ends, but from a high sense of moral responsibility, and an elevated appreciation of the dignity and importance of his calling. Here I need not allude to his valuable and interesting contributions to the medical journals of the day, or to the volume which must ever hold a high place in the estimation of those who are actively engaged in obstetric practice. Nor need I refer to his ability and readiness as a speaker, nor to the culture and acquirement with which he brought out new suggestions or forgotten associations in the various medical discussions in this and the other medical societies of which he was an active and a working member. *Nihil tetigit, quod non ornavit.*

The zeal and enthusiasm with which he entered upon his duties as President of this Society; the grace, courtesy, and decision with which he presided; the stimulus and efficiency which he gave to the work of the Society, are fresh in the memory of us all. His

ability, success, and popularity as a teacher were always subjects of congratulation with his colleagues, and will long remain as a tradition among the students of the college to which he was attached.

Here is not the place, and this is not the time, for those who loved him to recall, with tender recollections, his warm social affections, his hearty geniality, his bright humor, and sparkling repartee which never left a sting behind, and the happiness which he enjoyed and diffused in the indulgence of an elegant and refined hospitality.

In the active exercise of his profession, which permits no exemption from the calls of duty—even at those hours when the rest of the world are permitted to indulge in the needful repose of body and mind—on an exceedingly hot Sunday in July, while laboriously engaged in the practice of his art, the terrible warning came that his professional mission was ended. Who, in the profession in this city, will ever forget the heartfelt shock with which they received the intelligence that Elliot had been stricken down by apoplexy? To many others, as to myself, must have recurred those strikingly appropriate, but somewhat hackneyed, lines from Longfellow's *Psalm of Life:*

> Art is long and time is fleeting,
> And our hearts, though stout and brave,
> Still, like muffled drums, are beating
> Funeral marches to the grave.

On a Sunday morning in the depth of winter, his spirit broke from its earthly fetters, leaving to us, by the bright example of his life, the lesson to

> So live, that when thy summons comes to join
> The innumerable caravan, which moves
> To that mysterious realm, where each shall take
> His chamber in the silent halls of death,
> Thou go not, like the quarry-slave at night,
> Scourged to his dungeon; but, sustained and soothed
> By an unfaltering trust, approach thy grave
> Like one who wraps the drapery of his couch
> About him, and lies down to pleasant dreams.

On motion, the Chair appointed Drs. Barker, John C. Peters, and Isaac E. Taylor a committee to prepare appropriate resolutions.

DR. RICHARD T. UNDERHILL.

Dr. Harwood announced the death of Dr. Richard T. Underhill, of Croton Point, a non-resident member of the Society; and the Chair appointed Drs. Harwood, Van Kleek, and Goodwillie a committee to draw up suitable resolutions and present them at the next meeting.

PATHOLOGY OF GASTRIC TUBULES.

Dr. Austin Flint read a paper, of unusual interest and importance, on *The Pathological Relations of the Gastric and Intestinal Tubules.* The paper appears in the current number of the *N. Y. Medical Journal*, and we here present a full abstract:

Premising that the histological facts he should present had been drawn exclusively from three English observers, Handfield Jones, Wilson Fox, and Samuel Fenwick, and that his own observations had been made from a clinical and physiological point of view, the speaker said that for many years he had been firmly convinced that the secretory glands of the alimentary canal constitute a territory where important discoveries in pathology are to be made; that it had seemed to him a rational supposition that destructive lesions of these glands exist in a class of cases characterized by progressive and fatal inanition, taking place without the evidence of disease existing elsewhere sufficient to explain the symptoms and their termination. This view he had often expressed, predicting that the microscope would ere long be found to establish it. He would first relate the cases which had fallen under his observation; next present the histological facts referred to; and finally offer some considerations relative to the pathological importance of the gastric and intestinal tubules, not only in the cases where their lesion might be regarded as essentially constituting the disease, but also in affections where such lesion might hold a subordinate place.

Four cases were now related. The first was that of a strong man, sixty years old, of unexceptionable habits, free from previous disease except occasional gout, always a good feeder. With no assignable cause of disease beyond some domestic annoyances, he began to lose appetite, and gradually reduced his diet until it consisted chiefly of liquids. Without other symptoms to lead him to consider himself sick, the anorexia increased till it became complete, and his strength failed till he had to keep his bed from sheer weakness. At this point he came under the speaker's care. No sign of disease could be found in any organ. But the repugnance to food grew extreme; various tonics and stimulants were given with no benefit; and the patient died, clearly of inanition. There was at no time any febrile movement. The intellect, naturally powerful, remained clear until a day or two before death. The other three cases were in all essential respects the counterparts of this one. In one of them there was vomiting after food, but without evidence of cancer, ulcer, or gastritis. In another there was diarrhœa, but from intestinal indigestion, not ulceration or inflammation. All four were males near sixty years of age. The speaker had also, in consultation with Dr. Barker, seen two analogous cases in females of about the same age. The kind of food against which the stomach first or most strongly rebelled was not recorded in the above cases; but in one of them, certainly, animal food was given up long before the patient took his bed; and in the others the Doctor thought the aversion had been greatest toward the albuminous articles of diet. The question was important as bearing on the localization of the affection, either exclusively or chiefly, in the gastric or in the intestinal tubules.

The close resemblance of these cases, in many respects, to those described by Addison as examples of "idiopathic anæmia," and attributed by him to lesion of the suprarenal capsules, could hardly fail to be noticed. The term "Addison's disease" had commonly been restricted to such of the cases as were attended by a bronzed hue of the skin; though Addison himself regarded the melasma as non-essential, considering the anæmia to be the leading feature. But anæmia alone would not account for the fatal termination in these cases; there must be something more than a deficiency of red corpuscles to explain this; and it seemed reasonable to seek the explanation in a deficiency of essential nutritive constituents from non-assimilation. Had Addison's microscopic researches taken the direction of the gastro-intestinal tubules, he would probably have found a more satisfactory solution of his perplexing cases than in the disease of the suprarenal capsules, which, as he says, he "stumbled upon." These ideas, the speaker had advanced in a lecture published upwards of ten years ago (*Am. Med. Times.* Sept., 1860).

The following summary of the constitutional symptoms in Addison's disease, quoted from Greenhow's Clinical Lectures, might be taken as a fair epitome of those which, in the speaker's opinion, characterize destruction of the gastro-intestinal tubules.

The constitutional symptoms are: Gradually progressive asthenia, often originating without any apparent cause, and seldom dating from any definite period; great languor and

indisposition for exertion, with, in advanced cases, breathlessness and palpitation, frequent sighing or yawning, and general faintness on making any muscular effort, sometimes even on being raised up in bed. There is almost invariably great weakness of the heart's action, and remarkable feebleness of the pulse; loss of appetite; irritability of stomach, with nausea; and, towards the close of the illness, at least occasional, often persistent, vomiting. The mind is generally clear to the last; but so great is the prostration in the latest stages of the disease that the patient often lies in a drowsy, apparently semi-comatose state, from which, however, he can be roused by questions, and to these he generally gives pertinent, though slow and reluctant, answers. The above I should class as the most characteristic symptoms of the disease; but there are in many cases pains in the loins, hypochondria, or epigastrium, and, more rarely, dimness of sight, vertigo, and, near death, a tendency to incoherence or delirium. Death takes place from asthenia, and often rather suddenly.

Here is evidence, certainly, of something more grave than anæmia; but, assuming that Addison's cases really belong to the class under consideration, the anæmic condition must be noted as a very prominent feature in this class. Two cases were cited from the speaker's hospital experience in New Orleans, essentially similar to those before related, except that they were characterized by an extreme degree of anæmia, and that the patients, both males, were only about thirty years of age.

To establish the theory, above set forth, of the pathology of the class of cases described, it was obvious that "the existence of lesions more or less extensive and destructive (of the secretory glands of the alimentary canal) must be demonstrated by microscopical examinations after death; the abnormal changes must be shown to be morbid, that is, not cadaveric; and their constancy in this class of cases must be established by a sufficient number of necroscopical examinations."

In the *Lancet* of July 16, 1870, Dr. Fenwick had published a case, which was probably the first on record, where the diagnosis of disease of the gastric tubules had been made, and verified by autopsy. This case was quoted at length. It was that of a gentleman, about forty-five years of age, who presented a train of symptoms similar to those given above—progressive anorexia, with flatulence, and occasional vomiting; progressive muscular weakness and disinclination to mental effort; not much emaciation, but extreme pallor, with the sallow color characteristic of malignant disease; palpitation and breathlessness on exertion; great feebleness of pulse. There was nothing in the history, the symptoms, or the results of a most thorough physical exploration, including microscopic examination of the blood, to explain the anæmia which seemed to lie at the foundation of all the trouble. As there had been no disease capable of producing the anæmia directly, it must be dependent on some fault in the organs of absorption or of blood-preparation. The absence of emaciation showed that starch and fat were well digested and absorbed; "we had, therefore, only to examine the condition of the organs whose office it is to digest and prepare the albuminous materials of the food, namely, the stomach and ductless glands. There was no evidence of any affection of the spleen, thyroid, thymus, or lymphatic glands; and the absence of any dark discoloration of the skin seemed to negative the supposition that the suprarenal capsules were diseased. I therefore concluded that the stomach must be the organ in fault; and as atrophy is the only morbid condition which is not accompanied by characteristic local symptoms, I diagnosed atrophy of the gland-structure as the only disease present in the case."

The post-mortem examination was negative, except as regarded the stomach and the upper portion of the small intestine, which were examined microscopically. The stomach was empty, excepting a little gas, and showed no sign of post-mortem digestion. The pits on the mucous membrane were well defined, rather larger than usual. "The whole of the glandular structure of the organ was in a state of atrophy; in no part could I succeed in procuring a section of normal tissue. In the pyloric and middle regions the secreting tubes seemed to be converted into a mass of connective tissue; and it was only near the cardiac end that a trace of gland structure could be observed. In this situation the gastric tubes were represented by scattered flask-like bodies filled with granular matter and fatty epithelial cells. In other places the ends of the tubes were expanded. Each of these was surrounded by fibres, and was lined internally by a layer of cells, the contents consisting of fat-cells and granular matters. Brunner's glands were unusually large. The villi of the upper part of the intestine were large, prominent, and contained fat. The fat, however, was not in the form of an emulsion, but appeared in large drops in the interior of the villi." All suspicion of post-mortem digestion was removed by the empty state of the stomach, and the fact that the surface of its mucous membrane was healthy. To guard against errors of observation, the specimens were submitted also to Dr. Handfield Jones. The results of the microscopic examination were confirmed by the experiment of submitting a piece of hard-boiled white of egg to the action of an infusion of the gastric mucous membrane, with hydrochloric acid, under proper conditions. At the end of nine hours it had not lost in weight, and was only slightly softened on its surface.

"The post-mortem examination thus explained the symptoms under which the patient labored. The progressive atrophy of the stomach had prevented the digestion of the albuminous materials of the food, at the same time that the healthy condition of the liver, pancreas, and intestines admitted of a free supply of other constituents of the body. We know that the intestines possess some power of digesting albumen, and in many instances they no doubt compensate for a diminished action of the stomach; but in the present instance they seem to have been incapable of maintaining life."

Dr. Flint regretted that the tubules of the small intestine had not been examined throughout. They were inferred to be healthy from the absence of emaciation, showing digestion of non-nitrogenous food; but apart from the desirableness of having this inference confirmed by direct observation, their normal condition would have been evidence that the changes in the gastric tubules were morbid and not cadaveric. Assuming the appearances to be correctly interpreted, the importance of this case was hardly to be estimated. If a sufficient number of similar observations should establish the constancy of such lesions in the class of cases which seemed clinically so well defined, then we should have discovered a new disease, or rather a group of diseases; for probably one set of tubules might be affected without the other, and the lesions might differ in kind as well as in degree and extent. Moreover, there was reason to believe that lesions of these glands are often associated with other diseases, and that their functional derangement contributes more largely to the morbid phenomena of those diseases than has hitherto been recognized.

Handfield Jones, in a paper published in *Med.-Chirurg. Transactions*, 1854, and expanded into a monograph published in London, 1855, entitled, *Pathological and Clinical Observations respecting Morbid Conditions of the Stomach*, gives the results of his examination of one hundred stomachs, healthy and

diseased, taken without selection. He recognized the following different lesions: 1. Atrophy from pressure upon the tubes by an intertubular deposit which he calls "nuclear," and, also, from a fibroid formation. He considers the latter as similar to the lesion in cirrhosis of the liver. 2. Granular and fatty degeneration occurring without intertubular deposit or fibroid formation. 3. Pigmentary deposit both within and between the tubes. 4. Cystic formation. 5. Mammillation, which he attributes to atrophy limited to certain points, and which he regards as analogous to the granular condition of a wasted kidney. The mammillations are the parts where most of the natural tissue remains. Dr. Jones does not seem to have realized the importance of these conditions in determining the phenomena of disease, although an examination of his tables affords some evidence in favor of the views that have been presented.

Wilson Fox (*Contributions to the Pathology of the Glandular Structures of the Stomach*, in *Med.-Chirurg. Trans.*, 1858) made a similar series of one hundred examinations of non-selected stomachs. He considers the deviations from the normal structure to be of six kinds, as follows: I. Increase of the connective tissue between the glands, and of the submucous tissue, with occasional fatty degeneration of the latter. 2. Thickening of the membrana limitans of the glands. 3. Fatty degeneration or atrophy and loss of the glandular epithelium. 4. Pigmentary deposit in the tissues. 5. Cystic degenerations in the glands. 6. Occasional fatty degeneration of the vessels.

Dr. Fenwick (*Morbid Changes in the Stomach and Intestinal Villi present in Persons who have Died of Cancer*, in *Med.-Chirurg. Trans.*, 1865) found the gastric tubules frequently diseased and destroyed in cases of cancer, particularly cancer of the breast. The lesions were the same as those described by Jones and Fox—disappearance of the cells, granulo-fatty degeneration, and atrophy from pressure of enlarged solitary glands, or from increased formation of fibrous tissue. He noted also marked thinning of the mucous membrane, and diminution of its digestive power when tested as in the experiment before described. In concluding his memoir he says that the practitioner "will see in these alterations in the blood-making organs an explanation of the anæmia that so often ushers in and accompanies malignant disease, and he will be encouraged to hope that means may be discovered to arrest the progress of these alterations, or obviate their effects upon the system."

In the stomachs of patients dead of scarlatina, Dr. Fenwick (*Lancet*, July 23, 1864) found that, where death had occurred in the first week of illness, the tubes were "greatly distended by granular and fatty matter, or by small cells intermixed with granules." After the second or third week the tubes were less distended than at an earlier period, "their closed ends being still loaded with granular matter, obscuring greatly the gastric cells." In the matters vomited in one of these cases, in the third week, fibrinous casts of the tubules were discovered. The contents of the stomach, after death, were examined in all the cases. Where death occurred during the first week, they contained "pieces of fine membrane, cells, granules, and shreds of membrane." "The membranes were of the shape and size of the stomach tubes, and were covered with granules and fat." "In the cases of longer duration the membranes were covered with cells, and were also of the size and shape of the stomach tubes." As a check upon these appearances, the contents of the stomachs of forty-five non-scarlatinous patients were examined, and in only one—a case of acute gastritis—were there any fibrinous casts. In several cases of non-scarlatinous gastritis casts had been found in the matters vomited. "In eighteen cases there were either plugs formed of cells and granules from the secreting parts of the tubes, or the casts of conical cells were overlaid with granular matter; and in all these cases the stomach was more or less inflamed."

The labors of these observers were considered by Dr. Flint sufficient to establish the fact that the gastric tubules may be found more or less diseased in subjects dead of various affections, and that the frequency and extent of their lesion differ widely in different affections. The concurrence of the results of the three observers, and their agreement with what we know of renal pathology, were strong proofs of their correctness. But further observations were imperatively demanded to enable us to discover the relative frequency of occurrence of these lesions in different affections, and especially the clinical phenomena attending them. It would seem, from the beginning already made in the examination of matters vomited, that the microscope might yet be made as available in the diagnosis of gastric disorders as it has proved itself in those of the kidney. The study of the pathology of the intestinal tubules was as yet hardly begun.

It might seem strange that a subject of so much importance had received so little attention. But it was only recently that the anatomy and physiology of these glands had been understood; and their pathology was now no more imperfect than was that of the kidney before the publication of Bright's researches in 1827. What a large place in pathology had the minute changes in the kidney come to occupy within the last twenty-five years, and what might not the next twenty-five see determined with reference to the pathological relations of the gastric and intestinal tubules! The pathological importance of these glands might be fairly measured by their physiological activity. The tubules of the stomach secrete fourteen pounds of gastric juice in the twenty-four hours, and those of the intestine vastly exceed them in number, though we have not the data for determining the amount of their secretion. These, with the other digestive fluids, standing at the very portals of vegetative life, and taking the initiative in the processes by which aliment is converted into the blood and the tissues, it is evident that "the glands which secrete the essential factors in digestion cannot be extensively diseased without giving rise to impoverished blood, impaired nutrition, diminished muscular strength, weakness of the mental powers, and various abnormal conditions incident to these effects." Disease of these alone may be sufficient to cause death from inanition, and the dangers of such disease are of course enhanced by its association with other affections.

Doubtless in many fatal cases of other affections, where the discoverable mischief is insufficient to account for death, the explanation should be sought in the glandular lesions here considered. Fenwick had pointed this out in cases of cancer, and it was as eminently probable in some cases of phthisis. Experience had taught us that in these, as in other chronic affections, the tolerance of the disease depends, other things being equal, on the ability to ingest, digest, and appropriate food.

With our present knowledge, the characteristic symptom of this affection would seem to be persistent loss of digestive power, with anorexia finally becoming so great as to make the taking of food impossible—as impossible as in the temporary complete anorexia of a full stomach. Whether this aversion is commonly directed against particular classes of food would de-

mand careful study. It might be conjectured that where the gastric glands were solely or chiefly affected, it would be the nitrogenous articles which could not be taken, as in Fenwick's case, and commonly in Addison's cases of "idiopathic anæmia;" and that where the intestinal glands were mainly involved, it would be the non-nitrogenous articles, when we should probably find greater emaciation than in the former case.

In conclusion, after calling upon the zealous and competent histologists of our own country and of this city to aid in cultivating this promising field, the speaker said: "I shall not lengthen this paper by deprecating a charge of presumption in predicting great results to be looked for from labors which others are called upon to perform. I will only say, if from the perturbations of the heavenly bodies the existence and situation of undiscovered planets may be deduced, why may not the student in pathology venture, with a due regard to modesty, to reason from morbid phenomena concerning the direction in which new pathological developments are to be expected?"

Stated Meeting, March 6, 1871.

Dr. Abram Jacobi, President, in the Chair.

The President announced the admission to membership of Drs. Lucius D. Bulkley, Mark H. Williams, and Hermann Gulecke.

The report of the Committee on Intelligence was read by Dr. Castle; that of the Committee on Meteorology by Dr. Goodwillie; and that of the Committee on Diseases by Dr. Raborg.

SCROFULA: ITS RELATION TO TUBERCULOSIS, ETC.

Dr. J. Lewis Smith read a paper upon this subject, of which we present a brief abstract:

Scrofulous inflammations differ from others in being attended by greater cell-formation; in being especially liable to end in suppuration; and in being very commonly subacute and chronic. Scrofula is a disease of infancy and childhood, though early manhood is not exempt. The diathesis is most active before the age of fifteen years, and after the age of twenty its manifestations are infrequent.

The scrofulous diathesis may be either congenital or acquired.

Parents who have exhibited its symptoms in early life, and later have remained cachectic, are apt to beget scrofulous children. Consanguinity of the parents is commonly considered as a cause of the affection, but probably upon no solid foundation. There is no doubt that bad hygienic influences surrounding the mother during gestation, and especially her insufficient or improper nourishment, may render the child scrofulous.

Acquired scrofula may generally be traced to some depressing cause sufficient to produce the peculiar change in the molecular condition of the tissues. Insufficient breast-milk, or milk of poor quality, like that furnished after protracted lactation; poor diet after weaning, residence in damp and filthy streets or apartments, or in small and crowded apartments, even with personal cleanliness and good diet, are among the causes. The various eruptive fevers may either produce it, or render active the diathesis before latent. In this city chronic enterocolitis is perhaps the most frequent of all causes affecting infancy.

Is scrofula contagious or communicable? No one believes in its infectiousness; but there is a prevalent notion in favor of its communicability by contact, and some authorities are inclining to support it. It presents no analogy, however, to the diseases we know to be thus communicable, and in all probability it ought not to be classed among them. It may perhaps be proved, by and by, to be communicable by inoculation. Vaccination affords the best opportunity of testing this point; and there is certainly a very widespread popular belief that this is often the vehicle by which the diathesis is conveyed to the previously healthy. Such a belief, when it has reference to a diathesis characterized by clear external manifestations, ought to merit some respect. Now it is the almost unanimous opinion of those whose experience entitles them to a hearing upon this matter, that pure vaccine lymph never communicates anything but vaccinia; and that whenever anything else is communicated, it is by means of blood carelessly mixed with the lymph in its removal. This opinion commends itself by its reasonableness, as well as by the results of experience. But when scrofulous subjects are vaccinated, the sore, like any other slight wound in such subjects, is apt to take on an inflammatory action, to suppurate, and to cause swelling of the connected lymphatic glands. If the scab from such a sore is used to inoculate a healthy child, it may produce inflammation, from the products of inflammation it contains. Again, scrofulous manifestations may appear for the first time after vaccinia, but not oftener than after the other eruptive diseases—smallpox, measles, scarlatina, etc. It is probably the vaccinia itself, and not the inoculation of scrofulous material, which thus sometimes gives rise to the affection. We know that where a diathesis exists, the slightest occasions are often sufficient to bring it to light—a scratch may call forth erysipelas, a slight exposure rheumatism, etc.

With reference to the anatomical characters of scrofula, but slight changes have been observed in the blood. Its red corpuscles are diminished in number, and lose a part of their coloring matter. The white corpuscles are multiplied, according to Virchow, as long, and only as long, as the irritated glands retain something of their functional power. Scrofula must be regarded as quite distinct from leuchæmia, which Niemeyer tells us is a disease of adult life.

The chief anatomical change in the glands is an increased production of lymph-cells, that of the stroma being subordinate. This hyperplasia of the glands is sometimes primary, oftener secondary to inflammation propagated along their lymphatic vessels—for example, from a cutaneous eruption. In non-strumous subjects such an inflammatory swelling of the glands soon subsides; but in the strumous it is more persistent. The enlarged glands may become cheesy; and they are always liable to become freshly inflamed and to suppurate. Or the swelling may disappear, probably by fatty degeneration, liquefaction, and absorption. Calcification is a rare occurrence.

The diathesis is observed under two widely different types: the one marked by the tall, slender form; thin, transparent, skin; bright eye, with clear bluish sclerotic; small muscles; quick perceptions and intellect; the other marked by a torpid habit, with large, flabby muscles; much adipose tissue; prominent belly; thick upper lip; thick, flat nose, etc. Between the two are all gradations.

The most common strumous inflammations affect the skin, mucous membrane, connective tissue, bones, periosteum, eye, and ear. We have no space to follow their description in detail.

Chronic inflammations of the joints, like morbus coxæ, etc., while commonly considered strumous, are by some authorities strenuously denied to be so. The difference of opinion would seem to come from a

different understanding of the nature of scrofula. Those who hold hip-disease to be non-strumous, believe scrofula and tubercle identical. If they would define scrofula as simply a diathesis in which the tissues are easily wounded, there would be no further conflict about the scrofulous character of the joint-affection.

Scrofulous subjects are perhaps no more liable than others to inflammation of the internal organs, but the products of inflammation are more apt to become cheesy. Pneumonia, for example, often involves grave consequences in those decidedly scrofulous. Instead of becoming resolved and absorbed, its products form cheesy deposits, ending in consumption and death. This is so common that cheesy pneumonia has sometimes been called scrofulous pneumonia.

The relation of scrofula to tuberculosis has attracted much attention, some holding strongly to their identity, others as strongly denying it.

We must admit that the cells which we find so multiplied in scrofulous hyperplasia of the lymphatic glands are the same in character as the cells of tubercle; in other words, the physiological type of the tubercle-cell is the lymph-cell. But in scrofula these cells are found only in the glands, while in tuberculosis they appear not only in these but in various tissues throughout the system. Moreover, in the gland itself their mode of production is different in the two cases. In strumous hyperplasia the lymph-cells are multiplied by segmentation of the cells physiologically belonging to the gland; in tubercle they are produced from nuclei in the connective tissue of the gland.

In the fact that tubercle is often produced by cheesy matter conveyed to the lungs we find a similarity to scrofula.

Parents affected with syphilis and other cachexiæ are apt to bequeath scrofula to their children, but not tubercle. Consanguineous marriages oftener give rise to scrofula than to tubercle, as they should, since the former is the more prevalent.

Scrofula appears early in life, tubercle later, as a rule. Bouchut, indeed, holds that tubercle is only the manifestation of the most advanced stage of scrofula, corresponding, for instance, to the tertiary lesions in syphilis. But we may have tubercle in infants.

Recent investigations tend to show that tubercle is less a diathesis than formerly supposed, and than scrofula is admitted to be. Tubercle is often the result of local causes, where there was no previous diathesis, while in the causation of scrofulous ailments the diathesis always plays a prominent part.

Scrofula simply modifies ordinary physiological or pathological processes. In tuberculosis there occurs in the affected tissue a pathological process quite peculiar; there is produced in the connective tissue a cell which never otherwise occurs there.

The prognosis in scrofula depends much on the patient's hygienic conditions; as the diathesis may be acquired from bad conditions, so it may disappear under good ones. With proper treatment the prospect is good in most cases where there are not serious local troubles; but where these have reached a certain grade of intensity or chronicity, they will leave permanent deformity or impairment of function.

As to treatment, the prophylaxis must begin before birth. Then the infant must be put under the best hygienic conditions, care being taken to avoid everything which has been mentioned as liable to produce the diathesis.

When the disease has become manifest, the same regimen must be maintained or instituted; the child must have plenty of good food, fresh air, and sunlight, with tonics, if necessary to improve nutrition.

Of special remedies, cod-liver oil is justly lauded in the erethitic type of the disease, but in the torpid type it does little or no good. Children commonly like it. With adults it may derange digestion and so do harm.

Iodine has much value in the treatment of scrofulous swellings, etc., but it is questionable whether its effect on the diathesis itself is not overrated. It is best administered in its compounds, as iodide of iron, of starch, of potassium, or of sodium, the two former being especially adapted to children—the first, because they are apt to be anæmic; the second, because it is so readily decomposed by the digestive and other fluids.

Mercury is harmful, unless where the diathesis is due to syphilis.

The swollen glands are commonly treated with iodine, applied externally as a counterirritant. In the speaker's experience such irritation only served to cause greater proliferation of the gland-cells, and to increase, instead of diminishing, the evil. The mode of application should be such as to produce the minimum of irritation with the maximum of absorption into the gland. Good formulæ were: (1) A drachm of the iodide of potassium to the ounce of stramonium—to be rubbed over the gland, but too irritant to be used as a plaster; (2) Equal parts of Lugol's solution and glycerine; (3) An ounce of Lugol's solution to the pint of water, to be kept constantly applied on lint; (4) A solution of iodine and iodide of ammonium in glycerine and alcohol. When the glands become actively inflamed the iodine applications should be stopped, as only aggravating the trouble. There is no longer any prospect of resolution, and poultices should be applied.

Dr. Stephen Rogers hoped that careful experiments would be made with reference to the development, by vaccination with pure lymph, of active scrofula in persons who had before exhibited only the signs of the dormant diathesis.

Dr. W. C. Roberts reviewed some of the questions relating to the connection of scrofula and tuberculosis, and suggested the course which experiment should take to determine them. He stated that he had expressed the same views more fully in a recent paper before the Academy.

The President being called upon, said he would speak of a single point. Was scrofula a real diathesis, giving rise to a multitude of symptoms; or was it only a name that we apply to this group of symptoms, which we know not how else to designate collectively? The case of vaccination related by Dr. Smith might illustrate the point. A healthy boy, of healthy parentage, was vaccinated at the age of eleven years, and thereupon developed a sore arm, great and persistent glandular swellings in the axilla and various other parts of the body, and all the symptoms of so-called scrofula. This result was exactly what we so often see in younger children, as the effect of other causes. How many a child of the best stock is perfectly healthy until eight or ten months old; then gets a severe attack of enterocolitis; and then develops all the scrofulous symptoms just described.

When a child dies after the first two or three days of a severe diarrhœa, we always find a simple hyperæmic swelling of the mesenteric glands, as the result of the hyperæmia of the intestine in their immediate neighborhood. The gland is large, red, and soft. If such a diarrhœa ceases in a few days, the congestion of the gland goes off, along with that of the intestine, and there is certainly no change produced in its structure.

But let the diarrhœa have lasted a long time. Then the gland is found large, as before; yet it is no longer soft, but hard; no longer red, but pale; and the mi-

croscope shows a marked anatomical change. The prolonged congestion has given rise to the production of new cells, and these have become transformed into fibres in such abundance as to compress the blood-vessels. Such a gland can never return to its original size; and its nutrition and its functional activity are permanently impaired. These are the glands we find in such numbers in the mesentery after prolonged diarrhœa, and this condition is that known as tabes mesenterica.

When cells are accumulated in a gland in large numbers, whether mixed with fibres or not, those at the centre, most distant from the nutrient blood-vessels, will undergo decomposition, both from want of nourishment and from compression by the cells crowding upon them from all sides; that is, we find cheesy degeneration of the gland at its centre. What has been called tubercular degeneration of the mesenteric glands is nothing else than this breaking down of their tissue, consequent upon irritation, hyperæmia, hyperplasia, compression, and innutrition.

So-called scrofula, then, may originate in a simple catarrhal inflammation. It behoves us, therefore, when we see a case of mild diarrhœa, by no means to let it run on as of little importance; for congestion of the intestinal mucous membrane means congestion of the mesenteric glands as well, and if allowed to continue it will assuredly lay the foundation of hyperplasia, and, in all probability, of induration.

One other point I will barely mention. It is an interesting fact that scrofula is seen, apart from the lymphatic glands, only in the various modifications of one sort of tissue. Skin, mucous membrane, bone—all the tissues in which it appears—are transformations of what was originally connective tissue. Scrofula, then, would seem to be a disease of the connective tissue, rather than of the system generally.

Dr. Peaslee thought it would be well to discard the term scrofula from our nomenclature, since it expressed simply a series of changes with which we were now familiar under other names—such changes, for example, as had just been described by the President.

Dr. Stein thought iodine was often of so little service because it was employed too late.

Dr. Castle said that the late Dr. Whittlesey, who had had such a large experience in scrofulous diseases during his long charge of the Nursery Hospital on Randall's Island, was accustomed to exhibit iodine internally alone, and commonly in the form of Lugol's solution largely diluted. This, with cod-liver oil and careful hygiene, constituted his main treatment.

(To be continued.)

MEDICAL LIBRARY AND JOURNAL ASSOCIATION OF NEW YORK.

Stated Reunion, January 13, 1871.

Dr. S. T. Hubbard, President, in the Chair.

NASO-PHARYNGEAL CATARRH AND AURAL DISEASES.

Dr. O. D. Pomeroy read the valuable practical paper on *The Treatment of Naso-pharyngeal Catarrh in its Relation to Diseases of the Ear*, which we present in another part of this number.

Dr. Roosa stated that he wished to make a personal acknowledgment to Dr. Pomeroy for what he had learned from him in the treatment of throat affections, and that he wished to hear from him oftener, as the Doctor had been at work on this subject longer than many were aware of.

He would call attention to the fact that very little use was made by the Doctor of gargles, which he thought of great benefit even to the catarrh of the throat, as well as to the muscles of the Eustachian tube, which were strengthened by the gymnastic exercise of gargling. A simple experiment would prove that a gargle passed behind the uvula. Throw a solution of starch behind the uvula, and directly afterwards use a gargle containing iodine. The blue iodide of starch found in the superior pharyngeal space proves that the gargle has passed to the part.

Dr. Burrall inquired if any authentic cases of damage to the auditory apparatus had resulted from the nasal douche.

Dr. Roosa responded that several cases of purulent inflammation of the tympanic cavity had so resulted, making it in his opinion a method to be used with great caution. He had been attacked from several sides for publishing his cases, but he still adhered to the conclusion drawn from them, that the nasal douche was a remedy to be used very cautiously.

Dr. Pomeroy stated that he had repeatedly injected warm salt and water into the tympanic cavity by accident, but without doing serious injury. He instanced a case where both nostrils were partially stopped by polypi, when a stream pumped into one nostril, and somewhat impeded in its exit from the other, had passed into the ears, producing some pain but no harm. After the polypi were removed this did not at all occur. He thought every patient might be injected by this method, at first very carefully, and subsequently more harshly if it were well borne.

Dr. Whitehead said that many were in the habit of using the spray-producer, and he wished to know if there was any danger of the ear's being injected by this method, for if so it ought to be known.

No member knew of a case where it had done any harm to the ear.

Dr. Lincoln had had much experience with throat diseases for the last two years, and had never observed an accident from injecting the nares by Thudichum's method, although he had practised it frequently. He wished Dr. Sass were here to express his opinion on the subject. Dr. Sass was in the habit of asking his patients, previous to an injection, to take a full inspiration, so that no fluid was likely to be sucked into the lungs by an inspiration if they became frightened; and to be very careful not to swallow, which would open the Eustachian tubes and increase the chances of the fluid's passing into the tympanic cavity. Dr. Lincolon believed that the danger of doing damage to the ears, by washing out the throat and nares, was overrated.

Dr. Roosa believed that those who only treated throats were less likely to see ear-complications, as the patient would leave them and apply to an ear-man. This was the case with a patient under his care.

Dr. Dewes had come in late and was unaware of the contents of the paper; but he would like to call attention to the feasibility of the injection of remedial agents into the tympanic cavity, and the safety of the method. He had practised it, many years since, successfully. He believed there was more fear of injecting closed cavities than there was reason for, and cited instances where he had injected the uterus with safety. He thought that the pain in the ear, from injections into the throat or from applications to the Eustachian tube, was purely reflex, and did not necessarily indicate that the agent had passed into the cavity. The same argument applied to the uterus.

Dr. Folsom spoke at length upon the paper. In the

course of his remarks he alluded to a hard rubber instrument devised by himself, which he had recently the honor of showing the Society, which was appended to a glass spray producer in order to hook the uvula forwards, the more readily to apply the remedy behind it. He concurred in the opinion that Thudichum's method was less hazardous than had been stated, and proceeded to remark upon the possibility of removing secretions from the part without the use of washing to so great an extent. He thought the application of a remedy by the spray producer often excited successful efforts on the part of the patients themselves to remove the secretion.

Correspondence.

THE HUDSON COUNTY MEDICAL SOCIETY AND THE MEDICAL AND SURGICAL REPORTER.

To the Editor of the Medical Record.

Dear Sir—At the regular monthly meeting (Feb. 1871) of the Hudson County (N. J.) Medical Society, the attention of members was called to an editorial article which appeared in a recent number of the *Medical and Surgical Reporter*, wherein this Society is spoken of in a defamatory manner; whereupon it was resolved, that the editor of the Medical Record be requested to publish the article, and a reply as follows:

THE ARTICLE.

"A Tempest in a Teapot.—The Hudson County (New-Jersey) Medical Society has recently been putting itself on the record in an unenviable manner. The majority in it have taken a dislike to a certain medical practitioner in Jersey City, who is a skilful and successful surgeon (*hinc illæ lachrymæ*, we imagine), and reputable member of the American Medical Association. They attempt not only to frown down any medical journal which publishes articles by him, but even to ostracize his associates. Of course, their efforts in either of these directions only serve to display an impotent malignity; but we do regret that medical men should thus expose their weaknesses."

REPLY.

The above is taken from the *Medical and Surgical Reporter* of Jan. 21st, 1871—a journal published in Philadelphia and edited by S. W. Butler, M.D., who, it would seem, has been and is prostituting his journal, not only by publishing *obscene* articles therein, but afterward, when it is kindly hinted to him that *such* intellectual matter is not particularly agreeable to some of his patrons, he backs the author of said literature with his own pen, and through the columns of his journal makes an attack upon a medical society by statements as false as they are unprofessional.

First, "That the Hudson County (N. J.) Medical Society has recently been putting itself on the record in an unenviable manner." Unenviable to whom? To *him*, we suspect, as it appears he wishes to be considered on a par with the "reputable member of the American Medical Association," but with whom the Hudson County Medical Society decline to associate, because of often repeated unprofessional acts towards members of the Society. Within a period of ten years he has been proposed for membership in the Society, and balloted for four different times; on the first and last occasion the vote was a unanimous negative; the two other ballots gave two or three affirmative votes only on each occasion: verily, it looks to us as if there must be something more than that the "majority have taken a *dislike* to a certain medical practitioner in Jersey City."

Has the editor of the *Reporter* never heard of any standard of professional honor by which the profession is to be governed? If our advice were asked, we would advise him to read occasionally the code of ethics adopted by the Am. Med. Ass.;—evidently this code was prepared for the instruction of such as he. It was the upholding of that principle of professional honor (which out of the profession is translated to mean gentlemanly conduct) that rejected the editor's friend from the Society. During the ten years from the time of his first rejection the Society has grown in membership from eighteen to nearly sixty, and so far from attempting to ostracize the associates of the individual, the Society simply propose to select their own. If the lachrymose Butler desires to associate with him, the Society has not the shadow of an objection; but, on the contrary, with the present apparent sympathy between them, it is thought they will be "hale fellows well met." The Society is not prepared to say that the individual in question is *not* "a skilful and successful surgeon," though (to their shame be it confessed) the above-mentioned editor has gained that valuable information in advance of the medical profession of Hudson County. If discontinuing a medical journal because in it are published articles which disgust medical men, and notifying the editor of the fact, is an attempt to frown down the author of such an outrage, then the Society will be obliged to admit that some of its members *have* been guilty of exercising the right of choosing their medical journals ("hinc illæ lachrymæ, we imagine") as well as their associates.

Now, if the efforts of the Society or its members, in either of these directions (to maintain an unsullied literature and a high professional standard) "only serve to display an impotent malignity" in the eyes of the editor of the *Reporter*, it is greatly to be regretted that he ever embarked his feeble manhood in a profession the honor and character of which he cannot personally maintain or respect. Can it be that sordid motives govern his actions or direct the words he shall use? Has he been *hired* to degrade the profession to the meanness of a trade? The Society is informed that pecuniary considerations have been urged upon some of its members to influence their votes in favor of the shining light in the Am. Med. Ass. spoken of by the *Reporter's* editor, when about to be balloted for.

Does Dr. Butler know *how* this individual became a member of the Am. Med. Ass., and *who* or *what* he represented in that body? There *may* be some medical men in Hudson County who do not know.

Why does Dr. Butler speak so disparagingly of the Society when a manly stand is taken for the honor of the profession? Is it because only a few of its members choose to contribute five dollars a year towards his support, or is it because a consideration has been offered him too, and *this* time not rejected? Did the editor of the *Med. and Surg. Reporter* sell his birthright for a mess of pottage?

By order of the Society.

B. A. Watson, President,
J. H. Comfort, Secretary.

THE HEALTH BOARD AND THE MEDICAL PROFESSION.

To the Editor of the Medical Record.

Sir—As you may be aware, in accordance with a certain section of a certain code of Sanitary Ordinances now being enforced by the Health Department of the city of New York, physicians are required to report deaths within thirty-six hours after their occurrence, under a penalty for non-compliance of fifty dollars. So far, so good; but why should physicians be held responsible for the short-comings of undertakers—a class who, from time immemorial, have constituted the con-

necting link between the medical profession and all health-boards? As a rule, the proper certificate is duly signed and delivered to the undertaker within a reasonable time after death *at present*, and for this we return "our most humble and hearty thanks," *without* the inevitable and universally demanded services of a notary public.

We are blandly informed that this ordinance has been enacted for the purpose of securing accurate statistics. How satisfactory these statistics are a newspaper paragraph or two will attest, in the stereotyped phraseology:—"*The marriages during the past week were* ——, *the births* ——, *the deaths* ——, *and the still-births* ——; *showing a decrease over the corresponding week of last year, of* ——, *&c.*" Such reports as these, with not a word regarding "the movements of epidemics," represent the result of the facts furnished by our medical brethren, who, by a brilliant stroke of legislation, have been made undertakers' assistants and unsalaried sanitary inspectors. The forthcoming (*sic?*) annual report to the State Legislature *may* adjust the balance of indebtedness of the Health Board to the profession, at least to the more fortunate of them, who are adroit enough to capture from the "circumlocution office" a stray copy of an always-exhausted edition. In point of fact, Dr. Harris, in the good old days, with a clerical force much inferior in point of numbers, and with powers less plenary in their character, contrived to dispense a varied stock of information to the profession by a systematic use of his own time, without in the least disturbing the harmonious relations which he was ever careful to cultivate.

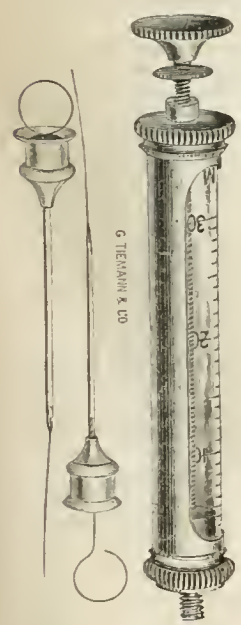
Yours, &c.,

QUID PRO QUO.

New Instruments.

A NEW HYPODERMIC SYRINGE.

We present our readers with a new hypodermic syringe, devised by TIEMANN & Co., which, we think, has decided advantages over others. These advantages consist, for the most part, in the peculiar construction of the instrument, which allows of its being kept clean with very little trouble, in the comparative improbability of its getting out of order, and its non-liability to breakage.



As represented in the cut, the glass cylinder is encased in a metal mounting, fenestrated to show the graduation for minims. No cement is used to fasten the parts to each other, but in its stead there are washers at each extremity of the cylinder, which not only insure the exclusion of air, but effectually prevent the annoyance of the glass becoming loose.

The instrument can be taken apart for cleaning by simply unscrewing the nut through which the piston plays. The piston is made longer than the cylinder, to allow of the washer being pushed through far enough to be freshened, oiled, etc., without the trouble of getting at it in the old way.

The two canulated points are made of tempered cast-steel, and much finer than those usually employed, an advantage in lessening pain on the introduction of the same.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 18th, 1871, to March 4th, 1871.

KEENEY, C. C., Surgeon.—By S. O. 25, Headquarters Mil. Division of the Pacific, February 13, 1871, assigned to duty as Attending Surgeon at those Headquarters, and Examining Surgeon at Recruiting Rendezvous at San Francisco, Cal.

HASSON, A. B., Surgeon.—By S. O. 35, Headquarters Dept. of the South, February 20, 1871, assigned to duty at Charleston, S. C.

MAGRUDER, D. L., Surgeon.—By S. O. 75, War Dept. A. G. O., February 24, 1871, ordered to St. Louis, Mo., to attend officers and their families, examine recruits, and give medical attendance at St. Louis Arsenal.

MILHAU, J. J., Surgeon.—By S. O. 35, c.s., Headquarters Dept. of the South, relieved from duty as Attending Surgeon at these Headquarters and assigned to duty as Post Surgeon, Taylor Barracks, Louisville, Ky.

KNICKERBOCKER, B., Asst. Surgeon.—By S. O. 35, c.s., Headquarters Dept. of the South, assigned to duty at Savannah, Ga.

PHILLIPS, H. J., Asst. Surgeon.—By S. O. 24, Headquarters Mil. Div. of the Pacific, the leave of absence granted in S. O. 5, c.s., is extended thirty days.

BARTHOLF, J. H., Asst. Surgeon.—By S. O. 35, c.s., Headquarters Dept. of the South, assigned to duty at Columbia, S. C.

Medical Items and News.

THE COMMENCEMENT OF THE COLLEGE OF PHYSICIANS AND SURGEONS.—The Sixty-fourth Annual Commencement of this time-honored institution was held at Steinway Hall, March 1, 1871. The hall was densely filled with the friends of the students and the college.

Rev. Sullivan H. Weston, Chaplain of Columbia College, made the opening prayer. Diplomas were given to eighty-five graduates, by Edward Delafield, M.D., President of the College. Prof. Dalton announced the following prizes: The first prize—"Thesis on Pulmonary Consumption and Tuberculosis," to Frank P. Kinnicutt, A.B., of Worcester, Mass.

Second prize—Thesis on "Dynamics of Life," to John O. Roe, M.D., of Patchogue, New York.

Charlton T. Lewis, Esq., then delivered an elaborate and interesting address, followed by the valedictory address of Edwin A. Goodridge, A.M., M.D., member of the graduating class.

ST. MARY'S HOSPITAL FOR CHILDREN, N. Y.—This new institution, located at No. 206 West 40th street, is now open and ready to receive patients. It was founded by the sisters of St. Mary and is under their sole care, management, and direction. It opens with only fifteen beds; but more will be added as means are supplied for the extension of the work. The *Visiting Physicians* are: Drs. W. H. Carmalt, Robert Watts, and F. D. Lente.

STEVENS'S TRIENNIAL PRIZE.—The administration of this prize of *two hundred dollars* is entrusted to a com-

mission consisting of the President of the College of Physicians and Surgeons N. Y. (ex-officio), the President of the Alumni Association (ex-officio), and the Professor of Physiology (ex-officio), in the same institution.

The following subjects have been selected for the next Triennial Prize under this fund:

I. The Sphygmograph; its Physiological and Pathological Indications.

II. The Pathology, Symptoms, and Treatment of Convulsive Affections.

The competing essays on either of the above subjects must be sent in to the President of the College of Physicians and Surgeons, New York, on or before the first day of January, 1873. Each essay must be designated by a device or motto, and must be accompanied by a sealed envelope, bearing the same device or motto, and containing the name and address of the author. The envelope belonging to the successful essay will be opened, and the name of the author announced, at the Annual Commencement of the College, in March, 1873.

Bellevue Hospital Medical College.—The commencement of this college took place at the Academy of Music, on Thursday evening, 2d inst. The graduating class numbered 134. Dr. Edward S. Bunker, of New York, was its Valedictorian, and his address called forth frequent applause by its humorous allusions to matters of college experience. The Wood prize of one hundred dollars, for the best essay, by an alumnus, upon some subject connected with surgical practice or pathology, was awarded to Dr. Thomas K. Cruse, for an essay on "Rupture of the Bladder dependent upon Stricture of the Urethra." Of the Wood prizes for anatomical preparations, the second prize was awarded to Horace G. Bidwell. The first prize was not awarded.

The address to the graduates was given by Dr. Oliver Wendell Holmes. He said that at this wedding of the Class to the Profession, he should address himself directly to the bridegroom, and the audience must consider themselves merely spectators. He would try to give the graduates a few hints that might help them to get patients and to keep them. Their parchments looked very large to-day, but from this hour they would begin to shrink. Yet it was only that they might be furnished with diplomas more enduring and more valuable from the hand of father Time himself, the oldest and the wisest of teachers. The answers so ready on their tongues to-day would then be many of them forgotten. Knowledge not practically wanted would die out like the eyes of the fishes in the Mammoth Cave, or like the undergrowth of a forest; but the compost of dead knowledge would nourish the roots of a more vigorous tree, that under the culture of experience would yield fruits of ripe judgment and practical skill.

True, their education had already united the practical to the theoretical in no small degree. The great hospital advantages of large cities were the special boast of schools. We must not fail to do justice, however, to the less pretentious merits of study with a country preceptor. There were modest practitioners in the remote rural districts so gifted by nature, so trained by experience in what is most essential, so self-reliant from having been forced to depend only on themselves, that by conversing with them, watching their cases, putting up their prescriptions, listening to their experience in the long rides, a young man would find himself better fitted for the work of his profession than he could become at any school. But such men were exceptional, and as a rule the great schools and the hospital wards offered the best opportunities to the student.

The new-made graduates were indeed safer practitioners to-day than would be many whose names we hardly mention without a genuflexion. But the knowledge now only in their brains would be very different when it had become a part of their very constitutions; when it flowed from their fingers as readily as the notes of a familiar tune from those of the practised player. Work-knowledge was not in the brain only, it was in the senses, in the muscles, in the ganglia of the sympathetic nerve—all over the man, as instinct seems diffused throughout every part of the brainless radiate.

But the young man's senses are quicker; his ideas are nearer to the latest teachings of science; he finds it easier to accept new discoveries and improvements. New ideas make their nests in young brains. The first whispers of a new truth are not taught to those who are beginning to need an ear-trumpet.

The Doctor now spoke of the constituency which the physician must expect to find; of the infatuation of the community, which knew so much more of medicine than the profession; of its infallible specifics and its potent charms. Such ideas were by no means confined to the ignorant. How many men were there in this very audience who were carrying horse-chestnuts in their breeches-pockets as amulets against rheumatism? You could no more reason people out of such notions than out of their faith in their Bible or their party; you must take them as they are and make the best of them.

With hints as to the habits, manners, tact, a physician must have to enable him to make his way successfully in such a community; with a consideration of the higher qualities of character he must possess to fit him to be the confidant and counsellor of his patients in the most delicate relations and the most trying experiences of life; and with some rules "how to choose your physician," addressed to the audience, the speaker closed a brilliant discourse.

The music was furnished by Bergmann's orchestra, and was of course excellent.

A Large Vesical Calculus.—At a late meeting of the Pathological Society of Dublin, Mr. Morgan exhibited a large vesical calculus, of the size of a large pear, which nearly filled the bladder.—*British Medical Journal.*

Hydrate of Chloral.—Ten tons of hydrate of chloral were, we understand, imported during last year from Germany. About a year ago it was selling at £5 a pound. Its market price is now, we believe, something under five shillings; the difference in price being due solely to the conversion of what was a curiosity of the laboratory into a commercial article. The only materials required are chlorine and absolute alcohol.—*British Medical.*

Baron Liebig.—Baron Liebig has so far recovered from his furunculoid affection as to be able to resume his lectures at the University of Munich. He is conducting the present course on experimental chemistry with all his old energy and effect.

Death of a Noted Surgeon.—We regret to hear of the sudden death, on the 5th ult., at the age of sixty-eight, of Dr. William Keith, of Aberdeen, who has probably had the largest experience in lithotomy of any surgeon of modern times.—*Lancet.*

Diphtheria in Germany.—The *Med. Cent. Zeit.*, of Berlin, says that this complaint is raging extensively in that capital, attacking both young and old. Many cases have been observed in the military hospitals.

Original Communications.

A NEW METHOD OF ARRESTING SURGICAL HEMORRHAGE BY THE ARTERY CONSTRICTOR.

DESIGNED FOR

THE INSTANTANEOUS HERMETIC CLOSURE OF ARTERIES, WITHOUT THE USE OF LIGATURE OR OTHER FOREIGN SUBSTANCE, TO BE LEFT IN THE WOUND.

AN ESSAY TO WHICH WAS AWARDED THE MERRIT H. CASH PRIZE, BY THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, FEBRUARY, 1871.

BY S. FLEET SPEIR, M.D.,

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THE armamentarium of the profession is already so burdened with variety of form and similarity of use that the introduction of any new instrument can be excused only on the ground that it enables us to accomplish the object in view more rapidly or more perfectly than heretofore.

The arrest of arterial hemorrhage is a subject of intense interest to every surgeon; it is attended, at times, with such hazards to the patient, and with such difficulties to the surgeon, that a new method of accomplishing it may not be found unacceptable,—the more especially as this method claims to have fulfilled the indications which are considered as those most to be desired by surgeons generally, viz.:—the closure of arteries by some method which leaves no foreign substance attached to the vessel or in the wound, and is, at the same time, proof against secondary hemorrhage.

It is claimed in the following pages that such a result can be uniformly arrived at by the use of the instrument herein described as the *Artery Constrictor*.

This instrument is offered as a substitute for the ligature, acupressure, and torsion.

It combines the most important principles of them all, and it is believed that it will be found a more ready method for the hermetic closure of arteries.

DESCRIPTION OF THE ARTERY CONSTRICTOR.

The artery constrictor consists of a flattened metal tube, six inches (more or less) in length, open at both ends, with a sliding steel tongue running its entire length, and having a vice arrangement at the upper extremity, by which it can be made to protrude from or retract within the tube or sheath. The lower end of the tongue is hook-shaped, so as to be adapted to the artery to be constricted. It is so shaped that, having grasped an artery, it can be made to contract upon it by means of the vice at the upper end, which forces it within the sheath. (Fig. 1.)

The hook of the tongue is so shaped and grooved as to form only a compressing surface, by which means the artery, when acted upon by the force of the vice, is compelled to assume the form of the curve of the tongue, and the artery is constricted in such a way that its internal and middle coats give way, but the external coat is preserved intact. The severed internal and middle coats contract, retract, curl upon themselves, and are driven down the artery in the form of a plug by the continued pressure of the grooved tongue as it passes on into its sheath. The artery may now be slipped out of the instrument, and it will be found that the external coat has been compressed at the point where it was in contact with the instrument, and the internal and middle coats will be found severed and invaginated on either side of the constriction. This invagination of the internal and middle coats is of itself sufficient to arrest the flow of blood; and as soon as the current of blood is arrested in the vessel, a coagulum forms upon the invaginated surface of the internal and middle coats, and this completes the occlusion of the artery.

It will be seen that the principle upon which the artery constrictor acts is the same as that which nature follows in her efforts to restore the integrity of a divided artery and arrest hemorrhage. It is based upon the anatomical structure and peculiar properties of the arteries, and is, in fact, the principle upon which all successful methods for closing arteries are based.

The principal methods at present in use for the arrest of arterial hemorrhage are three in number, viz.:—Ligature, acupressure, and torsion.

1*st. The Ligature.*—This method, which was introduced in the sixteenth century by Ambrose Paré, has accomplished all that was expected of it. It still claims the first place in the list. The ligature is, in general, safe, practicable, and efficient, and it will doubtless sustain its reputation through all time. Yet there are occasions when it is not found to be all that is wished for, and other methods may be found more desirable.

The action of the ligature may be briefly stated as follows:—A firm ligature, tied around a healthy artery with considerable force, cuts the brittle structure of the internal and middle coats, while it leaves the external and strongest coat of the artery intact, but firmly compressed in the knot. The drawing together of the knot favors the tendency of the internal and middle coats to contract and retract. The current of blood being arrested in the end of the vessel, a coagulum quickly forms upon their rough edges, and thus the process is complete. The subsequent changes, inflammation, etc., which occur within and around the vessel, do not concern us at present.

The steps in the process may be summed up thus:

1st. Division of the internal and middle coats.

2d. Retraction and contraction of the internal and middle coats.

3d. The internal coagulum.

4th. The support furnished by the external coat and the ligature. The ligature is finally removed by a gradual process of sloughing, and is discharged from the wound.

2*d. Acupressure.*—Next in importance to the ligature comes acupressure, originated in 1860 by Professor Simpson; it has since been practised successfully by many surgeons, and is recognized as a reliable method of arresting hemorrhage. It can never be universally applicable, however, and perhaps the same might be said of any method.

The action of acupressure upon the artery is, in the main, similar to that of the ligature. There are, however, fewer steps in the process.

Dr. Hutchison, in his admirable essay on Acupressure, says:—"When acupressure has been employed, the internal surfaces of the artery have merely been placed in contact." "The needle, like the ligature, does the office of the external coagulum which forms when bleeding ceases spontaneously." "The blood between the needle and the first branch above becomes stagnant, and an internal coagulum is allowed to form." Adhesive inflammation is also excited by the pressure of the needles pressing the walls of the vessel together, and by the irritation resulting from the division of the artery, causing adhesion of the walls of the vessel to each other, and of the outer coat to the sheath, or other immediately adjacent tissues."

The advantages claimed for acupressure over the ligature are as follows:—

1st. It is more simple, efficient, and easy of application.

2d. Secondary hemorrhage, phlebitis, etc., are not so likely to occur with acupressure as with the ligature.

3d. Acupressure can be applied in some cases when the ligature cannot; for example, when the arteries are diseased or when the artery cannot be reached to apply the ligature.

4th. The needles can be removed in a few hours or days, thus leaving the wound free from all foreign bodies at a comparatively early period, a condition favorable to the union of the wound by the first intention.

3d. Torsion.—Torsion has been practised, as a means of arresting hemorrhage, with more or less success, for a long time, and was reintroduced to the notice of the profession by Thierry, Amussat, Velpeau, and others.

It is especially applicable to medium or small-sized arteries, and can never rank with the ligature or acupressure. Its chief advantage is its simplicity.

The mechanism of torsion consists in:—

1st. The rupture of the internal and middle coats.

2d. Contraction and retraction of the internal and middle coats.

3d. The drawing together and twisting of the external coat.

4th. The formation of the internal coagulum.

It will be seen that torsion is no mean process. It can boast of all the advantages of both the other processes for closing arteries. Its failure as a hæmostatic process is not due to any inherent weakness, but rather to the difficulty of effecting all the steps of the operation with accuracy.

It is very difficult to perform the operation of torsion perfectly; even experienced operators find that they frequently fail.

The instruments used are very crude,—a pair of forceps! When, however, the operation is performed with care, and it is complete, the effect is quite as certain as that produced by either of the other procedures.

Having given this short review of the leading methods of closing arteries, let us see what is the real difference in their claims, and determine their relative advantages by a comparison of the mode of action, and the advantages and disadvantages. Thus—

The ligature acts by

1st. Division of the internal and middle coats.

2d. Contraction and retraction of the internal and middle coats.

3d. Coagulum formed in the interior of the vessel.

4th. Support furnished by the external coat and the ligature.

Advantages claimed for the ligature are:

1st. It is safe.

2d. It is efficient.

3d. It is easily applied.

4th. It requires but little skill or practice in its application.

The disadvantages of the ligature are:

1st. It cannot be always applied to diseased arteries with safety.

2d. It tends to prevent union by the first intention.

3d. It is liable to cause pyæmia and phlebitis.

Acupressure acts by

1st. The contact of the internal surfaces of the artery from pressure of the needles.

2d. Coagulum formed in the interior of the vessel.

3d. Adhesive inflammation excited by the pressure of the needles.

Advantages claimed for acupressure are:—

1st. It is efficient.

2d. It is safe.

3d. It is easily applied.

4th. There is less risk of pyæmia, etc.

5th. It favors union by the first intention.

The disadvantages of acupressure are:—

1st. It cannot be applied in all situations.

2d. The danger of secondary hemorrhage should the clot fail to form, or should the clot break down from granular degeneration, or the needles be withdrawn too early.

3d. The time required, necessary instruments, variety of methods, and skill requisite for its proper performance.

Torsion acts by:—

1st. Rupture of the internal and middle coats.

2d. Contraction and retraction of the internal and middle coats.

3d. The drawing together and twisting of the external coat.

4th. The internal coagulum.

Advantages claimed for torsion are:—

1st. It is easily applied.

2d. It favors union by first intention.

3d. There is no risk of pyæmia, etc.

4th. In appropriate cases it is efficient and safe.

Disadvantages of torsion are:—

1st. It cannot be applied to diseased arteries, or to arteries in their continuity.

2d. It is only applicable to arteries of medium size.

3d. The end of the artery is liable to be strangulated by too much twisting, and act as a foreign body in the wound.

4th. The want of a perfect method for its performance.

In looking over these methods for the arrest of hemorrhage, we are struck by the simplicity and efficiency of the two last; and by the fact that in reality but very little is required of art to arrest hemorrhage, even from large vessels. The provision for the success of our efforts has been made to a great extent by nature, in the anatomical structure and properties of the arteries.

The most simple of them all has quite as much to recommend it as the most complicated.

All of these methods have certain disadvantages which limit their application. None of them can be used with the same advantage in all cases, and there is yet room for improvement in the means at our disposal for the arrest of surgical hemorrhage; at least we can see no objection to offering for trial the method applied by the artery constrictor.

Based upon the same principles as the other procedures, it includes more of the combined advantages claimed for them than any one method alone.

The artery constrictor acts by:—

1st. Rupture of the internal and middle coats.

2d. Contraction, retraction, and curling up of the internal and middle coats.

3. Drawing together of the external coat over the internal and middle coats, causing them to become invaginated, while the external coat is drawn over them and firmly compressed.

4th. Formation of an internal coagulum.

5th. Maintaining the integrity of the external coat, and preserving the continuity of the vessel.

Advantages claimed for the artery constrictor are:

1st. It is efficient.

2d. It is safe.

3d. It is easily applied.

4th. No internal coagulum is necessary, as the inva-

gination of the internal and middle coats is sufficient to arrest hemorrhage; it is, therefore, applicable where the blood is anæmic, &c.

5th. No foreign body is left in the wound, thus favoring union by the first intention.

6th. There is no risk of pyæmia or phlebitis.

7th. It is applicable to all sizes and to all conditions of the arteries where the external coat is perfect.

8th. It is a mechanical appliance which has a uniform effect, and it requires but little skill or practice in its application.

These are advantages which can be claimed by no other method, and if the instrument sustains itself in the hands of others, as it promises to do, it will be found useful in many cases where neither of the present modes of closing arteries could be equally well applied.

I have had occasion to make the following severe trials of the artery constrictor. The instrument has the same effect upon the dead artery as upon the living, but it acts more perfectly upon the living vessels.

EXPERIMENTS UPON DEAD ARTERIES.

Applied to the femoral or other large-sized artery of man (post-mortem), it had the effect (represented in the accompanying cut) of perfectly closing the vessel, so that it resisted the flow of water forced into it by means of a Davison's syringe. This experiment I have repeated frequently, and always with the same result. (Fig. 2.)

EXPERIMENT UPON A LIVING DOG.

The constrictor applied to the abdominal aorta of a living dog, closed the vessel perfectly—no blood escaped from the constricted end—which could be seen pulsating until the animal died from the combined effects of chloroform and the operation. (Fig. 3.)

EXPERIMENTS UPON LIVING SHEEP.

In the month of December the following operations were performed upon the carotid arteries of full-sized sheep.

The common carotid artery was constricted in its continuity as rapidly as possible, and the constricted portion removed at once. This operation was performed to see the immediate effect upon the vessel, and the rapidity with which the coagulum would form. Upon examination of the specimen, a perfect invagination of the internal and middle coats, at the point of constriction, and a firm clot on either side of it (this specimen is represented in the accompanying cut) closing the vessel perfectly. (Fig. 4.)

OPERATION ON CAROTID ARTERY OF SHEEP, IN SECTION.

After the above operation the artery was, of course, exposed in such a way that it bled freely from both ends; the constrictor was applied to them with the effect of closing them perfectly, and the sheep was allowed to run in the yard while another sheep was operated upon; and then the animal was killed and the artery examined. It was found closed by the invaginated internal and middle coats, and a firm clot covering them (represented in cut). (Fig. 5.)

OPERATION ON CAROTID ARTERY OF SHEEP, IN SECTION.

On another sheep the carotid artery was exposed and cut entirely across. The constrictor was then applied to both ends of the vessel, with the effect of perfectly closing the vessel. The animal was killed soon after, and the arteries were found occluded by a firm clot (as represented in the cut).

CAROTID ARTERY OF A HORSE CONSTRICTED IN ITS CONTINUITY.

On the 11th of November, a large-sized horse, in good condition, was placed at my disposal by the kindness of Drs. A. Large and A. Liautard, of the New York Veterinary College, and the following operations were performed in the presence of these gentlemen, Dr. Robt. F. Speir, Dr. Robinson, and a class of students. Dr. Liautard cut down upon and exposed the left carotid artery in a very skilful and careful manner. I applied the constrictor to the artery in its middle third, in its continuity—the constrictor being put upon the artery, and removed as soon as the screw could be turned to the required extent, which took only one minute and thirteen seconds.

Dr. Large examined the facial artery after the operation, and found that there was a diminution in its force, as much as could be expected considering the extent of the collateral circulation through the vertebral artery. The wound was closed by Dr. Liautard, and the horse was led to his stall. No untoward event occurred after the operation, and on the 25th the wound had entirely healed, and the animal was ready for the second operation, viz.:—

CONSTRICTION OF THE CAROTID ARTERY OF A HORSE—THE ARTERY BEING CUT ENTIRELY THROUGH WITH THE KNIFE—NO HEMORRHAGE.

On the 25th of November the same horse was operated upon as follows:—Dr. Liautard exposed the right common carotid for about two and a half inches in its middle third. I applied the constrictor at two points, about one inch and a half apart, and then, with the knife, divided the vessel between them. The artery immediately contracted at each end, the distal end being drawn up in the neck. The cardiac end retracted downward, but was at once projected into the wound again by the force of the heart's action, and it could be seen pulsating in keeping with the action of the heart, rising and falling one half inch with every beat of the heart. Not one drop of blood escaped from the end of the artery. On the contrary, the cardiac extremity, which was seen beating in the wound, presented the yellowish-white color of the inner coats which were exposed by the operation. The wound was kept open and the artery exposed, that it might be observed by a class of veterinary students; and then Dr. Liautard brought the wound together with sutures, and the horse was led to his stall, looking quite sleepy from the effects of the operation. There was no hemorrhage from the wound or the artery; and in twenty-two hours the horse died from the effect of the operation, the other carotid having been tied previously.

Dr. Liautard removed the arteries, and we examined them together.

The first specimen, from the left carotid tied in its continuity, exhibited the effect of the constrictor upon an artery when applied in its continuity, viz.: division of the internal and middle coats, with a continuous and uninjured external coat. The clots in this artery were small and easily washed out by a current of water. This operation was such as would be appropriate in the treatment of aneurism.

The second specimen—right carotid constricted in section—exhibited the effect of the constrictor upon the artery when applied to it in section—as would be appropriate in amputations. The divided artery was found separated about one and a half inch—both ends were closed and occupied by a firm clot, which, with the invaginated internal and middle coats, had effected a complete occlusion. There had been no hemorrhage from either end of the artery. (Fig. 6.)

Considering the large size of the carotid in the horse, I think this test may be fairly considered a very severe one. The appearance of the artery is well shown in the accompanying cut. (Plate 8.)

I am not aware of any other means by which so large a vessel could be closed so rapidly and perfectly. The advantage of leaving the wound free from foreign bodies was plainly indicated in the rapidity with which the wound healed after the first operation—a part of the wound closing by the first intention—a rare occurrence in the horse.

AMPUTATION AT THE HIP—CONSTRICTION OF THE FEMORAL AND PROFUNDA ARTERIES.

On the evening of Saturday, October 8th, 1870, a boy was run over by a street car and taken to the Brooklyn City Hospital. Dr. Cochran, the surgeon then on duty, being sick, requested me to see the patient for him. I found the left limb terribly crushed; the knee-joint was disarticulated and the soft parts of the thigh lacerated to such an extent as to allow the femur to project from the wound several inches, the leg being attached to the thigh by a band of skin and a few shreds of bruised tissue. The only chance for the boy seemed to be amputation at the hip, which I performed at once. As soon as the anterior flap was made, the femoral artery and the profunda artery were taken up and the artery constrictor applied to them, the effect of which was to arrest the hemorrhage from these vessels entirely. They were left in this condition until the remainder of the operation—the formation of the lower flap and the disarticulation of the head of the bone—was completed, and the wound washed and ready for coaptation. All this time the ends of the arteries constricted could be seen pulsating in the wound; those present of the resident staff of the hospital and myself were satisfied with the security of the vessel. However, considering the circumstances in this case, I was not willing to trust to the constrictor, feeling that it would be injudicious to do so in the absence of any of my colleagues, and especially as I knew of the objections of Dr. George Cochran, for whom I operated, to any method of closing arteries other than by the ligature. This, added to the fact that it was an accident case which might involve litigation, induced me to finally apply ligatures and close the wound as usual in such cases. I removed a portion of the profunda artery which had been constricted, and it will be seen among the cuts. The femoral artery being short, I did not feel at liberty to remove a portion of that vessel.

AMPUTATION OF THE THIGH—CONSTRICTION OF THE FEMORAL ARTERY.

On the 8th of December, C. W., æt. 54, was brought to the Brooklyn City Hospital with a compound comminuted fracture of the leg. Dr. D. E. Kissam, visiting surgeon then on duty, hoped to save the leg, and treated it with this end in view; but symptoms of gangrene appearing, it was decided to amputate at the thigh. On the 12th of December this operation was performed by Dr. Kissam amputating the thigh at its lower third, after the circular method. At the request of Dr. Kissam I closed the femoral artery with the constrictor, this vessel being the only artery exposed. The femoral vein, which bled more than usual, was also closed by the constrictor. The result gave the same satisfaction as in the other cases. The wound was then washed and left open for a few moments to see if all was secure. Meantime the artery was seen pulsating in the wound perfectly occluded, not a drop of blood having passed from it after its constriction. The wound was then closed by sutures after the usual manner. The condition of the patient being bad, and reaction after the operation being difficult, but little hope was entertained of his recovery, a condition of things which created considerable anxiety as to whether this might not be too severe a test for the constricted artery. Finally gangrene set in in the stump, notwithstanding which, and the "open" condition of the wound which followed such a condition, there was no hemorrhage. The patient died three days and sixteen hours after the amputation.

The artery was removed from the stump, and it was found perfectly closed by the invaginated internal and middle coats, and a firm clot, as represented in (Fig. 7).

In 1793, Deschamp invented his instrument for the immediate compression of arteries, "by which the artery was to be compressed against a horizontal bar by the tightening of a ligature, the ends of which were passed through openings in the bar, and secured at the top of a vertical stem of the instrument." Since this time there have been many attempts to produce a reliable substitute for the ligature. In the present paper it is not intended to enumerate these methods, but it may be stated that they have nearly all been based upon principles which depend for their success upon a force applied to the artery for a considerable period of time, and requiring to be withdrawn subsequently. One of the methods noticed in this paper—torsion—is an exception to this statement. Webber's intracisor and antiligature forceps are also exceptions to this statement. Whether or not there are others I am not aware; certainly none have been presented to at all compare with torsion in this respect.

The fact that such efforts have been made to secure the advantages of the ligature without any of its disadvantages, shows plainly that the minds of practical surgeons have long been impressed with the possibility of closing arteries by some method better than the ligature. Certainly no unprejudiced surgeon would deny that the ligature often interferes greatly with the healing of wounds, maintains suppuration by acting the part of a seton, increases the chances of pyæmia, and sometimes causes secondary hemorrhage.

The primary effect of the ligature is so satisfactory, and it appeals to one's sense of present security to such a degree, that we are very likely to overlook the accidents which sometimes follow as the direct consequence of its use, but which are often attributed to other causes. The surgeon is not likely to feel any great responsibility rest upon him should a patient upon whom he had operated die of pyæmia or secondary hemorrhage after the amputation of a limb, although it might be traced directly to the use of the ligature.

The same surgeon would view his responsibility in a very different aspect should he find that by the employment of some other means of closing the vessels secondary hemorrhage followed.

Secondary hemorrhage following, with equal frequency, the use of any other method of closing vessels would be considered sufficient ground for its rejection. Doubtless it is for this reason that many of the methods which have been presented to the profession for trial have failed to sustain themselves as reliable methods, and it is probable that many or most of them were worthy of a better fate than that which befel them. Acupressure and torsion can scarcely meet with the same fate, and they will probably be supported, notwithstanding the objections to them, whether better means are offered or not.

We have now learned that it requires but very little force to effect the closure of arteries. The satisfactory results sometimes obtained by the use of acupressure

and torsion have taught us that the perfect occlusion of arteries may be effected by a much less degree of force than was formerly supposed to be necessary.

In view of these considerations it seems unreasonable to cling to the ligature with prejudiced tenacity; and those objections which are common to the ligature, and other methods also, ought not to be used exclusively to suppress the claims of the rival method, but ought also to be placed to the account of the ligature.

The peculiar effect of the *artery constrictor* upon the coats of the artery—rupturing and invaginating the internal and middle coats, while it preserves the integrity of the external coat—appears to offer a more substantial ground for confidence than any method based merely upon pressure or an internal coagulum. This, added to the fact that the instrument is instantly withdrawn from the vessel, seems to offer all the advantages which can be expected of any method.

The advantage which the artery constrictor offers for fulfilling the indications necessary for the union of wounds by the first intention, will be seen when it is noticed that absolutely nothing is left in the wound to act as a foreign body: although probably the same apparent objection will be raised against the artery constrictor which has been offered against the operation of torsion, viz.: that the bruised end of the artery acts as a foreign substance in the wound, and must be removed by suppuration.

It seems to me that those who have raised this objection to the use of torsion must have had very little practical experience with it, or else have performed the operation very carelessly or imperfectly. From my own observation of the effects of torsion, and from a considerable experience in the crushing of tissues by the écraseur, I have concluded that the effect of torsion, or of crushing the extremity of the artery, even to a considerable extent, provided it be done rapidly, is not incompatible with the union of wounds by the first intention. In order for the crushed portion of an artery, or other tissues left in a wound, to become a slough, or to act as a foreign body, it is necessary that the pressure should be continued until sloughing or inflammation begins, or else that the portion crushed be separated from contact with the other living tissues, and exposed to the influence of atmospheric air or other deleterious influences, as inflammation, etc.

None of these conditions are present in the case of operations as usually performed, for the wound is brought together immediately, and any lost vitality is restored by the close contact with the living tissues and the blood. Besides, the greatest pressure made by the artery constrictor is not sufficient to injure the external coat of the vessel. The moment the internal and middle coats give way, the pressure upon the external coat is very slight, on account of the groove in the tongue of the instrument, made on purpose to receive the external coat and protect it from injury. Therefore this objection to the operation of torsion, even if it held good, could not be raised against the artery constrictor.

This leads me to mention one of the chief advantages of the artery constrictor over the ligature and acupressure, viz.:—That provision which it promises for the prevention of secondary hemorrhage. When the ligature is used a sinus is formed along the track of the ligature, leading directly to the end of the vessel; and in case of accident to the artery from a too speedy separation of the ligature, or from a failure of the internal coagulum to form, or other cause producing secondary hemorrhage, the blood finds a free and tempting outlet through the sinus or opening thus provided.

So also with acupressure, the needle being left in the wound acts temporarily as a foreign body, and also creates a sinus leading to the artery; and in case of the failure of the internal coagulum to form, or on account of the breaking down of the clot from a granular degeneration, or in case of a failure of the wound to unite by the first intention, there is always more or less danger of secondary hemorrhage following the withdrawal of the needles when any of the above circumstances occur.

With the artery constrictor, on the contrary, hemorrhage is rendered impossible, under any of these conditions, from the fact that the invagination of the internal and middle coats forms a valve-like projection in the interior of the vessel, which is of itself sufficient to protect the artery from hemorrhage.

I desire now to present the artery constrictor to the profession for trial. I am confident that some such method will eventually displace the ligature: if this be not the method, it must be acknowledged that the principles upon which it is based are those which must finally succeed. It may be that the experiments which I have thus far been able to make upon the living human arteries of large size, are not sufficient to inspire those not interested in the success of the instrument with confidence enough to employ it in capital operations. I trust, however, that any necessary proof of its merits may soon be forthcoming. To my own mind the experiments upon the arteries of the horse have covered the whole ground, the first operation proving the possibility of rupturing the internal and middle coats of the artery without injuring the external coat; the second operation proving the possibility of closing a very large artery, in section, without leaving any substance attached to the artery or in the wound. All the other questions connected with the occlusion of arteries have been proved over and over again by the advocates of other methods and pathological investigations.

In the meantime there can be no objection to the use of the instrument in a multitude of cases where the arteries are not of large size, and where there is never any danger in the use of even the most crude efforts to arrest hemorrhage.

The artery constrictor will often be found useful to control the bleeding in amputation of the breast, and in other operations where it is desirable to secure union by the first intention, and yet where the arteries are not of such a size as to create any fear of failure.

If the surgeon has not sufficient confidence in the instrument for this, then I may venture to recommend it as an aid to the performance of operations in general, where it is desirable to keep the wound free from blood after the first incision is made, and yet where the ligature or acupressure needle would be in the way of the operator, and also require subsequent removal. In such cases there can be no danger, and often a great advantage gained by applying the constrictor to the arteries as fast as they are cut; the operation may then go on with one of the most disagreeable accompaniments of larger operations overcome, that is, the presence of blood in the wound. For this purpose a small pocket case constrictor is to be used. In such instances it may supply the place of torsion, than which it is more easily and effectually applied.

The artery constrictor offers encouragement for its trial in operations to produce the occlusion of arteries in cases of aneurism. In this use the constrictor is to be applied to the artery in its continuity, the internal and middle coats being ruptured and invaginated on either side of the instrument, and the external coat is left as a connecting band to the vessel, preserving its continuity.

The great advantage to be gained in the use of the constrictor in aneurism being the possibility of obtaining union by the first intention, the wound being brought together immediately after the operation, and as the constrictor is always to be withdrawn as soon as it has made its impression upon the artery, there is nothing left around the artery or in the wound to act as a foreign body.

The artery constrictor may be found useful also in cutting off the vascular supply of large tumors, in which case it should be applied in the continuity of the vessels in the same manner as directed for aneurism.

In the operation of ovariotomy it is very desirable to have some simple means of arresting the flow of blood from the small vessels which are opened during the breaking up of adhesions, etc. Inasmuch as the constrictor acts equally as well upon small as upon large arteries, the same advantage may be gained by its use in this operation as in those already mentioned, the abdomen being left free from ligature or other foreign substances usually found necessary.

In the application of the constrictor for the closure of large vessels after amputation, etc., there need be no fears entertained of immediate hemorrhage, because the usual pressure which is made upon the artery above the points of operation (by the tourniquet or otherwise) is always sufficient to arrest the flow of blood into the extremity of the artery and cause the formation of a clot. This pressure is usually made for safety and convenience' sake; but should it be made designedly for the object of obtaining a clot in the artery, of course the effect would be more perfect.

DIRECTIONS FOR THE APPLICATION OF THE ARTERY CONSTRICTOR. (See Figs. 8, 9, 10.)

The application of the constrictor is very simple. The artery is to be caught up by a tenaculum or a pair of forceps (which answers better), and the tongue of the constrictor placed around the vessel; the tongue is then drawn tightly upon the artery by means of the vice arrangement at the upper end of the instrument. As soon as the screw turns with a considerable degree of resistance, or the internal and middle coats are seen to be invaginated, by noticing their movements in the end of the artery, the instrument is to be detached from the artery and the operation is completed.

In large arteries the tongue of the constrictor must be drawn into the sheath further than is necessary for small arteries. This is the one point which it is necessary to attend to in the closure of large arteries;—there can be no harm done to the vessel by being drawn well into the tube, and a thorough invagination secured. The invagination of the internal and middle coats may be made as thorough as it is desired, by drawing the artery into the tube as far as needed to effect the object. Some of the instruments have been made with stops, to indicate when a proper invagination was reached; but by further experience it was found that the touch was the best guide for the operator. By a continued traction upon the external coat of an artery, after the invagination is once commenced, the internal and middle coats may be peeled up and pushed entirely out of the external coat, and this latter coat be drawn out through the sheath, entirely freed from its inner coat, so that the operator has it in his power to produce an invagination to any desired extent.

It is well always to permit the blood to flow into the artery (if it has been controlled by tourniquet or otherwise during the operation) before removing the constrictor; this secures a perfect clot upon the invaginated coats, which can hardly be displaced afterwards.

For convenience's ake the constrictor may be made with three sizes of tongues, to be used with one tube, so as to be useful in any sized artery.

A pocket case constrictor is also made to be used as a substitute for the torsion forceps, than which it is more easily and effectually applied.

TWO CASES OF

TRACHEOTOMY WITH FAVORABLE RESULTS.

By HENRY S. HEWIT, M.D.,

SURGEON TO CHARITY HOSPITAL, LECTURER ON SURGERY, ETC., ETC.

CASE 1.—On a certain evening, about 9 o'clock, in January, 1860, I was called in consultation by the late Dr. Robert Johnston to a case supposed to be in extremity. I found Thomas Fay, aged three and a half years, dying by suffocation.

Examination elicited a history of diphtheria, and exploration revealed patches of false membrane extending over the fauces, soft palate, and tonsils, all the signs of laryngeal obstruction, accompanied by loud bubbling râles audible over most of the heaving chest, and associated with dulness on percussion posteriorly and inferiorly. The countenance was livid, the extremities cold, the pulse weak and rapid—death was impending. I gave a discouraging prognosis, but advised tracheotomy as a last resort, in which I was cordially sustained by the attending physician. With much reluctance and after considerable delay consent was given, and at 12 o'clock, assisted by Dr. Thomas Addis Emmet, Dr. Johnston, and in the presence of several other medical gentlemen, I performed the operation upon the almost lifeless child. The light was fortunately good, and conveniently placed. Ether was cautiously given in small quantity. Little blood was lost, notwithstanding the distension of the thyroid veins. An immense quantity of viscid, frothy, bloody mucus and fluid diphtheritic material issued from the opening into the trachea, and for many seconds respiration was entirely suspended. The trachea was cleared out by suction, compression of the chest practised, and finally breathing recommenced, and the tube, a double one, kindly lent me by Prof. Van Buren, introduced and secured.

Every vicissitude characterized the subsequent progress of this case. The temperature of the apartment was frequently allowed to sink to a level with the external air of a very cold season.

I sometimes found the little patient sitting up uncovered in his bed, with the tube choked by bronchial excretions, gasping, coughing, and breathing through the tracheal wound by the sides of the tube in a hissing, bubbling, and altogether most distressing manner.

In spite of these untoward circumstances, and one or two occasions of collapse in which life was apparently extinct, the case made a good recovery, and the boy is now living and in good health. The tube was worn about fourteen days. The wound healed on the twenty-fifth day. Six weeks sufficed for the restoration of natural voice and normal strength and activity.

I attribute the recovery of this apparently hopeless case, after operation, to an almost unlimited administration of stimulants.

Hot whiskey and brandy punch were freely and constantly given, and for days together the tube exhaled an ethereal odor.

Diminution in quantity or frequency in this respect was immediately resented by signs of sinking.

My own accidental but most opportune visit at 4 o'clock of an exceedingly cold morning on the occasion

ILLUSTRATIONS OF A NEW METHOD OF ARRESTING SURGICAL HEMORRHAGE BY THE ARTERY CONSTRICTOR.

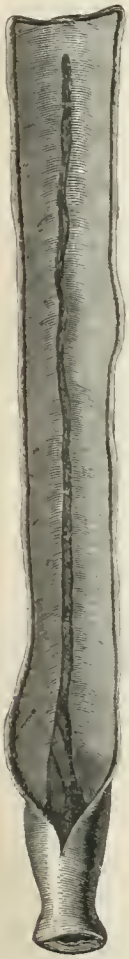

FIG. 7.

FIG. 8.

FIG. 1.

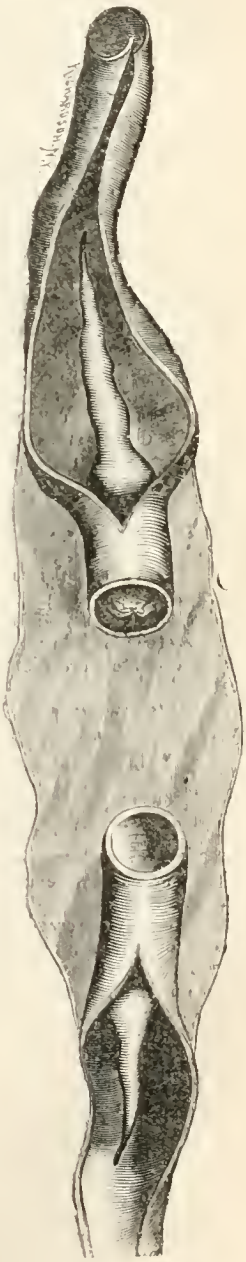

FIG. 6.

FIG. 4.

FIG. 3.

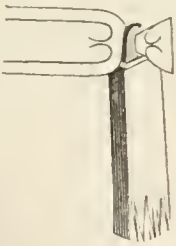

FIG. 9.

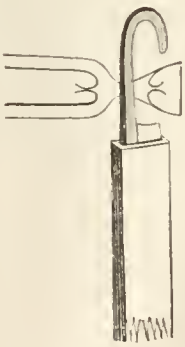

FIG. 10.

FIG. 5.

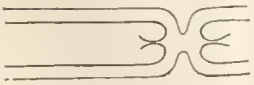

FIG. 2.

of the most dangerous collapse, prompt clearing out of the tube, and liberal administration of hot whiskey and water, prevented that occurrence from ending fatally.

Case 2.—On the 30th of December, 1870, I was called to see John Conway, residing at 126 East 51st street. I found a delicate boy, aged eight years, of a strumous diathesis, with a suspiciously ringing cough and hoarse articulation, slight fever, fair appetite, and no general or local distress. I cautioned the father and friends of the child as to the possibility of the appearance of more urgent symptoms, prescribed expectant remedies, and took my leave. On the day but one after I called and found a full efflorescence of measles and an almost complete disappearance of the croupous symptoms. I renewed my previous cautions, with the injunction to give immediate notice of any change in the patient. On the 4th of January, at 3 P.M., I was summoned in extreme haste, and found the patient with fully-developed membranous croup. The paroxysms of breathlessness had commenced early in the afternoon.

The return of cough and hoarseness was coincident with the subsidence of the eruption the day before. I estimated at this time that the patient without relief would live from twelve to fifteen hours.

Having explained the circumstances, which were intelligently apprehended, I advised consultation and immediate operation. Consent was given at once, and I proceeded with all possible speed to make the necessary preparations and obtain the advice and assistance of my friend and colleague Dr. Erskine Mason.

Dr. Mason sustained the diagnosis and opinion, and at 6 P.M., with the aid of gas-light, we proceeded to perform the operation. Ether was given, the subcutaneous divisions made with a blunted scalpel, the trachea laid bare without bleeding, opened, and a double tube inserted.

Complete relief immediately followed. The child, still sleeping, was placed in bed; the temperature of the apartment regulated to stand permanently at 80°, and a croup kettle placed in operation at the bedside with the steam directed towards the mouth of the tube.

The following excellent formula of Dr. Leaming was directed, a teaspoonful every two hours:—

* ℞ Ammoniæ Muriat., ʒ ss.
Potas. Chlorat., ʒ j.
Syr. Senegæ,
" Pruni Virgin., āā ʒ iss.

Steady and systematic nutrition by beef tea and milk punch was likewise advised as of the utmost importance.

This case progressed exceptionally well. No untoward event of any kind marred its course. On the third day I began to interrupt respiration through the tube, and on the seventh removed it altogether. On the thirteenth day from the operation, the opening was completely closed; and on the twenty-first the voice had begun to recover its natural clearness and force. At the present date the boy is perfectly well.

These two cases happening at a widely distant interval, and under diverse circumstances, illustrate some of the most important points in regard to a surgical procedure, concerning which there is much uncertainty and diversity of opinion.

The first was the most unfavorable possible, in its nature and conditions; the second, with allowance for a naturally delicate constitution, very happily situated as to comfort, care, nutrition, temperature, and the period selected for operation.

* This prescription frequently requires to be diluted with syrup and to be given in diminished doses.

The conclusion which I desire to draw, and the one I am disposed to adopt till better instructed by the knowledge of others or my own experience, is to advise tracheotomy in every case of impending suffocation, whether from diphtheria or fibrous croup; and secondly, to insist upon the operation at the earliest moment at which the condition is recognized with certainty; before the brain is poisoned by unoxygenated blood, and the unstriped fibres paralyzed by interruption, diminution, and pravity of nervous force.

REMOVAL OF A PORTION OF A NEEDLE FROM THE KNEE-JOINT—RECOVERY.

By E. G. JANEWAY, M.D.

NEW YORK.

On Sunday, the 7th of November, 1870, a gentleman brought his daughter, four years of age, to my office with a piece of thread hanging from an opening in the skin over the outer side of the right knee. Her father stated that a short time before, while she was playing on the floor, a needle had run into her knee, leaving the thread hanging out, as above described. A short examination convinced me that the threaded needle had entered the joint, and was imbedded in the bone—the head of the tibia, I supposed; and that traction *on* the thread was useless. I sent the child home, giving the father directions to apply ice to the joint, till I could arrange for a consultation with a view to the extraction of the needle. Dr. Gouley and Dr. Loomis met me three hours later, and we decided that the proper course would be to follow the thread by careful dissection; and to open the capsule of the joint, if that procedure should be found indispensable to the removal of the needle. The child was placed under ether, and Dr. Gouley followed the thread by careful and delicate dissection. Occasional traction was made on the thread, but the needle was so firmly imbedded in its lodging-place, that this only served to move the leg; and this was desisted from for fear of breaking the thread and thus losing the guide to the needle. Finding it necessary, Dr. Gouley opened the capsule of the joint an inch to the outside of, and partly below the patella, to the extent of an inch. On strongly flexing the knee a portion of the needle was seen to protrude from the cartilaginous surface of the outer condyle of the femur near its centre at a right angle, whilst the end of the thread and the eye portion of the needle were hidden in its substance. This was easily removed by a pair of forceps. The portion thus removed was less than an inch long. Not knowing what had become of the remainder, a search of the floor where the child had been playing was ordered; and a larger piece, evidently of the same needle, was soon found minus the point. This we supposed had broken off in the floor, when the eye portion entered the knee. The lips of the wound were then brought together by fine silk sutures.

The after-treatment consisted of two elements—rest, and the continued application of cold. I secured the first, by placing the child on her back, and tying the leg in a small pillow, for two days—afterwards, by means of a plaster of Paris splint reaching from the upper third of the thigh to the toes. A thin layer of cotton and a flannel bandage were applied before the plaster bandages; and the anterior half of the knee-joint was left bare.

The cold was obtained by the use of bags filled with ice. For the first two days the child was restless, and would complain of her knee on the least movement of

her leg; but no complaint of this kind was made after the application of the plaster apparatus.

The sutures were removed at the end of the third day, as slight suppuration had then commenced in their course, and a portion of the wound had healed by the first intention. Their place was supplied by strips of adhesive plaster, so applied as to cover the wound and protect it.

The use of the ice was continued uninterruptedly for two weeks, the joint having become somewhat swollen at first, and remaining so for ten days, and being also painful on pressure.

To prevent the effects of reaction, on suddenly discontinuing the ice, I ordered gradually increasing thicknesses of cloth to be interposed between the ice-bag and the joint.

No granulations formed in the ununited portion of the wound till the removal of the ice, but in one week later the healing process was completed. The splint was removed at the end of four weeks, and a slight membranous adhesion found on bending the knee to a right angle. I made no attempt to break this up, but allowed the child for a few days to move the leg, and then to run around.

She soon made an apparently complete recovery.

Two points in connection with the use of ice in disease were apparent here:

First. It prevented the granulations from springing up in the wound after the sutures were removed, but previously the presence of an irritant, in the form of sutures, sufficed as usual to produce suppuration.

Secondly. Whenever the ice was suddenly removed, the effects of reaction threatened to prove injurious; and hence I adopted the procedure above described, with happy results.

I ought to state, that the child was descended from healthy parents; and that her father's wounds always healed readily. She had enjoyed good health.

249 West Twenty-third Street.

Progress of Medical Science.

Novel Mode of Controlling Hemorrhage.—Dr. J. H. H. Burge (*N. Y. Med. Jour.*) contributes the history of a case of Placenta Prævia attended with profuse hemorrhage. He found a small margin of the placenta presenting. The liquor amnii had completely drained away, so that the outline of the child could be made out through the abdominal walls. The examination excited some pain and caused considerable hemorrhage. Observing that during the pain the pressure of the child's head upon the placenta controlled the flow, he in the intermission grasped the uterine tumor and pressed steadily in the direction of the os. This was continued with perfect success for two and a half hours, when a living child was born, and the placenta followed without loss of time. During all this time, if the pressure was relaxed while the uterus was inactive, hemorrhage was sure to follow.

Castration for Epileptic Insanity.—Dr. Mackenzie Bacon, in the *Practitioner*, cites a case of removal of the testes in a lad who had brought on epilepsy and insanity by self-abuse. The result was an improvement in every way, including a marked increase of intelligence. He thinks the operation would be useful to many insane epileptics.

Hydrophobia cured by Hydrate of Chloral.—Dr Thomas Nicholson (*N. O. Times*) was called to attend a patient, 12 years old, with hydrophobia. He presented all the symptoms attending that disease. Dr. N. determined to use chloral thoroughly, and accordingly administered twenty grains. He was a little calmer, but no sleep; gave thirty grains half an hour after. The patient went to sleep in five minutes. Ordered the dose to be repeated when patient waked: he waked quietly in two hours. After the medicine he again slept for seven hours, when he was awaked to take essence of beef, which he took unconsciously. Was then ordered to be put in a warm bath every three hours, and every four hours to have the chloral, if required, and to have the essence of beef. Between the baths the wound was dressed with warm flax-seed poultices, made up with equal parts of tincture of opium and arnica. The patient was kept more or less under the influence of the chloral for four days. In a week he was well.

New Method of Reducing Dislocations of the Shoulder.—Dr. Samuel Logan, of New Orleans, describes his method. The patient is placed on the back, while the surgeon, having removed his boots, seats himself so that his legs shall be nearly at right angles to the patient's body, but pointing rather upwards. He places the heel of one foot in the armpit, against the ribs, so as to press a little crosswise; the base of the great toe of the other foot is placed against the acromion process, and the surgeon pushes with moderate force while traction is made upon the arm.—*Transactions Am. Med. Assoc.*

Hiccough Cured by Chloral.—Dr. P. F. Whitehead has recently prescribed for a patient with hiccough, which had continued for thirty-six hours. Various remedies were used with but little good effect, save a temporary cessation by the use of morphine hypodermically. Thirty grains of chloral gave immediate and permanent relief.

Tobacco as an Antidote to Malaria.—Dr. S. P. Crawford, on this subject, says: "The only assurance of freedom from all the ills of miasmatic poison, while it continues in force, is to constantly use some antidote. I do not say that tobacco is the best; but I do say, in my opinion, that it is capable of warding off oftentimes periodic diseases, by in some way counteracting the causes that produce them. I do not say that it will hold good in all cases, nor do I believe it would be of much service where miasm is concentrated and holds its deadliest carnivals. It is only in those habituated to the use of tobacco, who appear to enjoy the usual health of those who use it, that I have noticed this immunity. I cannot say there is any difference between the smoker and the chewer."—*Nashville Journal of Medicine and Surgery.*

Impotence Resulting from Onanism; Cured by Electro-Magnetism.—Dr. Finstein, of Ohio, reports a case of this in a man aged 26, who, from the age of 15 to 19, was addicted to onanism, but which was relinquished after the latter period. At the age of 23 he found himself impotent. Various remedies failing, electro-magnetism was resorted to, and after 52 applications, twice a day, continued from 10 to 30 minutes, his powers were restored.—*Medical News.*

Incompatibility of Quinine and Veratrum Viride.—Dr. Bradley, of St. Mary's, Ohio, reports that when a patient is under the influence of veratrum viride, it is highly dangerous to administer quinine. The effects are most alarming: immediate sinking of the pulse, which, in some instances, reaches collapse. He ran great risk of losing three patients before he became aware of the actual cause.—*Cincinnati Lancet and Observer.*

Treatment of Gonorrhœa by Local Means.—Dr. Thomas Hill (*Richmond and Louisville Medical Journal*) treats this disease in the following manner:—He injects the urethra every half-hour with cold water for about twelve hours, keeping a cloth wet with cold water applied to the parts. After the inflammation seems to be partially subdued, he uses the following:—℞ Acid. carbolici, gtts. v. to x.; glycomæ, aquæ, āā ʒ ss.; ɱ. This to be used three times in the twenty-four hours. He says: "I have yet to see the patient, who followed these directions, who was not entirely relieved in three days. I look upon the recumbent position as absolutely requisite. If any internal remedy is necessary, a good dose of epsom salts is the best. If the scalding of urine is very severe, a teaspoonful of sodæ bicarb. will be found very effectual."

Subcutaneous Injection of Bubo.—Dr. Werthheim, attached to the syphilitic and skin department of the Rudolph Hospital, Vienna, states that he has given up all attempts at dispersing buboes by causing their absorption, and now treats them by subcutaneous injection. Solutions of morphia, camphor, sulphate of copper, etc., may be used as circumstances require, but muriate of ammonia (gr. iv., aquæ ʒ ij) is that which is usually preferable. The ripe abscess is punctured by means of a thick needle, or the tube of a strong Pravaz syringe. After most of the pus has been gently pressed out, the injection of eight or ten drops of the solution is practised, the patient being taught himself to empty, every three or four hours, the fluid that may have collected. The injection is at first repeated daily, and afterwards at longer intervals. Although not essential, it is better for the patient to keep in bed. The advantages of this method are that the pain of the abscess almost immediately ceases, and the other inflammatory symptoms steadily diminish; the thickened pus is gradually transformed into a thinner fluid; gradually decreases in quantity; no cicatrix remains; formation of pus is confined to the gland, and surrounding inflammation gradually diminishes.—*Boston Med. and Surg. Journal.*

Excision of the Mamma.—In an article by Joseph Bell, in the *Edinburgh Medical Journal* of February, on Excision of the Mamma, he gives the following résumé of his views:

1. We are not bound to an elliptical or oval incision; but in many cases a crucial, radiating, or T-shaped one is more convenient, and renders dissection of the mamma more complete.

2. There are certain cases where the progress of the cancer is slow, the skin not infiltrated, and the constitution not affected, in which we are warranted in operating on axillary glands.

3. That, for such operations to have any chance for success, we must see that the breast is removed *entire;* that the axilla is cleared of its fat as well as glands; and that the chain of diseased lymphatics is also removed.

Endemics and the Soil.—At the last meeting of the British Association in Liverpool, Dr. Moffat, of Hawarden, read an interesting paper on "Geological Systems and Endemic Diseases," showing that the soil had an influence on the composition of the cereal plants grown upon it, and on the diseases to which the inhabitants are subject. The district in which he practises consists geologically of the carboniferous and new red sandstone, or Cheshire sandstone systems.

Anæmia with goitre is prevalent among those living on the carboniferous systems, whilst it is almost unknown among those living on the new red sandstone system; and consumption is also more prevalent amongst the inhabitants of the former. Dr. Moffat has found by analysis that the wheat grown on the soil of the Cheshire sandstone, contains the largest quantity of ash, and that there is a larger quantity of phosphoric acid grown on the soils of the carboniferous and mill-stone grit systems. He has calculated that each inhabitant of the Cheshire sandstone, if he consumes a pound of wheat daily, takes in nearly five grains per day of the sesquioxide of iron more than the inhabitant of the carboniferous system, who seems, therefore, to be subject to anæmia in consequence of deficiency of iron and phosphoric acid in his food.

It is not only in the wheat grown upon the carboniferous system that there is a deficiency in the quantity of iron and the phosphates, according to Dr. Moffat, but also in the blood of the animals reared upon it. He stated that sheep were liable to anæmia, which he attributed to sheep-walks being upon trap and limestone hills, in the soil of which there is but little, if any, iron.—*National Medical Journal.*

Decline of Vaccination in Great Britain.—Nearly all the British medical journals contain some allusion to the increase of small-pox, which is generally attributed to the decline of vaccination, in consequence of the senseless and fatal prejudice against protection brought about by the anti-vaccination agitators.

Function of the Prostate.—Dr. Kraus, editor of the *Vienna Medical Times*, says that he believes that he has discovered some essential points relating to the function of the prostate, but will, at present, only make some preliminary statements that he thinks will be found to deserve attention.

I. The seminal fluid, as long as it remains within the testes, vesicles, and other seminal passages, is colorless and scentless, being in appearance exactly like fresh honey while deposited in the comb; and in reaction it is neutral.

II. Only when it has quitted the passages and arrived in the urethra does it acquire its white color and its peculiar faint smell.

III. During its passage through the prostatic portion of the urethra, the prostate empties out its fluid, colors the semen white, and confers upon it the faculty of coagulating when exposed to the air (alkaline reaction). Semen taken from the seminal vesicles does not coagulate, but remains clear, colorless, and scentless.

IV. The spermatozoa, in the absence of the prostatic fluid, cannot live in the mucous membrane of the uterus of mammalia; but with its aid they may live for a long time in the uterine mucus, often more than thirty-six hours.

From the above the conclusion may be drawn that the prostatic fluid exercises an unlimited influence on the viability of the spermatozoa, sustaining it when endangered by the secretions of the mucous membrane of the uterus.

This is undoubtedly the case with those species of animals which possess a prostate, and he intends next to extend his investigations to those species which are destitute of this.—*Med. Times and Gazette.*

The Introduction of Iodine by means of Electricity.—M. Brückner has investigated the resistance that the uninjured skin offers to the introduction of iodine when applied by the electro-therapeutic method, the subject of his experiments being himself and a patient. The two electrodes were applied opposite to each other on the flexor and extensor sides of the forearm, and a very strong current transmitted through the arm, after tincture of iodine had either been painted on

the skin, or a compress wetted with it had been applied beneath one or the other of the electrodes. Iodine and iodide of potassium entered into the cutis at the cathode, but did not in all probability penetrate much deeper, and a slight inflammation occurred, which however was subsequently shown to be due to the action, not of the iodine, but of the electric current alone. No iodine penetrated the skin at the anode. He has not satisfactorily ascertained whether iodine penetrates into the deeper tissues or not, when applied by means of electricity. He recommends that mode of applying it on account of the slightness of the inflammatory reaction by which it is accomplished.—*Deutsche Klinik*, 1870, *Practitioner*.

A Prothetic Apparatus for the Survivors of Amputation at the Hip.—Dr. George A. Otis, Asst. Surg., U.S.A. (*Am. Jour. Med. Sciences*), states that, by using a gutta-percha artificial stump nine or ten inches in length, firmly strapped to the pelvis by a broad chamois-lined canvas band, an ordinary artificial limb for thigh-stumps can be used. In two cases of amputation of the hip under his supervision this expedient has been employed by Dr. E. D. Hudson, New York, and the mutilated men walked better than most men with artificial limbs who had been amputated at mid-thigh.

Hydrochlorate of Quinia in Whooping-Cough.—Dr. Breidenbach speaks of the marked benefit derived from the use of the hydrochlorate of quinia during a violent, but not widely spread, epidemic of whooping-cough occurring last year, the dose administered being governed by the age of the patient and the severity of the attack, but being relatively large and varying from one and a half to fifteen and a half grains per diem in children of from three weeks to eight years. No other remedy than the quinine was used in the cases on which he bases his opinion of its merits, and some of the children, on account of poverty, were freely exposed to the injurious influences of the weather.

There appear to be no contra-indications to its use, and no toxic influences were observed.

The action of the drug is prompt. In the most serious cases, after the use of the remedy for forty-eight hours, the frequency and violence of the attacks began to diminish. To prevent relapse, the use of the remedy was continued for some time in smaller doses. —*Practitioner, February.*

Cold Bathing in Typhoid Fever.—Dr. Febrsen, dating from Dresden, states that he has recently visited the military hospitals, and seen the numerous cases of typhoid fever brought from the seat of war in France. The type now raging among the French and Prussian troops, is the typhus abdominalis of the Germans, or what is here known as typhoid or intestinal fever.

The fever cases are indiscriminately mixed with the wounded, and those suffering from dysentery. Many of these were removed to Dresden, and it was determined to try the effects of cold bathing. The mode adopted was, that as soon as possible after admission into the hospital, the temperature of the patient was ascertained. If the thermometer showed 104° Fahr., he was put for fifteen minutes into a bath of 59° Fahr., up to the neck; in cases of much headache or delirium, an additional quantity of cold water was poured over the head, or cold compresses were applied. A measurement, three-quarters of an hour afterwards, uniformly showed a fall of two or three degrees. The cold bath was repeated during the first week from four to six times a day, or as often as the temperature attained to 102° or 103° Fahr., experience having shown that the rapid cooling down of the febrile heat to a normal temperature is a powerful means of mitigating the symptoms, shortening the duration of the disease, and favoring an early convalescence, besides obviating the necessity of prolonged bathing at a later period of the disease.

The most striking benefits derived from this cold bathing are—firstly, that the delirium is generally mild or easily subdued; secondly, an earlier return of sleep; thirdly, a total absence of bed-sores; fourthly, a less prostrate state of the system when the patient leaves the hospital. Women, being more manageable, bathe more willingly than men. Many cry or give way to moaning for a few minutes, until, by a little courage and lying quite still, the body gets accustomed to the cold. If the water, however, be in any way disturbed, immediately they commence moaning and crying, showing, probably, that the stratum of water in immediate contact with the body must have acquired a higher temperature from the evolution of the febrile heat. After the first bath the sick show less objection to its repetition, and some even like it. Dr. Febrsen saw about two hundred cases thus treated. Nothing contra-indicates the use of the bath except very feeble action of the heart, hemorrhages, or perforation of the bowels, nor is a little bronchitis considered as an obstacle. The lightest food, with very little claret, is all that is given. Quinine is administered for the express purpose of lowering the febrile heat, sixteen grains being given in two divided doses in the evening. The statistics of the Stadt-Krankenhaus at the present time, contrast most favorably with those of a few years ago, when the mortality averaged 11¾ per cent., as at present it does not exceed 4 per cent.—*Lancet, Dec.* 31, 1870, *and Practitioner, February.*

The Ophthalmoscope in Treatment of Epilepsy.—Dr. Reuben A. Vance, of New York (*N. Y. Med. Journal*), in the management of five recorded cases of epilepsy, places great stress on ophthalmoscopic examination. For the last two years he has almost unconsciously fallen into the habit of mentally arranging his patients according to the intra-ocular appearances observable with the ophthalmoscope. In one class of patients the efficient cause of the paroxysms is an excessive amount of blood circulating through the brain; while, in other cases, the opposite condition—an anæmic state—produces the epileptic phenomena. In concluding his valuable paper, Dr. Vance asks, Why is it that certain cases of epilepsy are cured by the administration of the bromide of potassium? Simply because they have as their efficient cause a congested condition of the brain, which this agent, properly administered, tends to relieve. Why is it that certain other cases are made worse by the bromide, and benefited by such remedies as strychnia and belladonna? For the reason that their efficient cause is an anæmic condition of the brain, which the bromide aggravates. The good effect of the other drugs is to be ascribed to their power of producing a hyperæmic condition, which counteracts the preceding anæmia. Why is it that the bromide relieves for a while, and then, apparently, fails in its power, the fits returning in an altered form? The answer to this is, that the remedy, by its excessive action, tends to produce an anæmic state of the brain, which causes the return of the convulsions.

He is fully convinced that even the most unpromising cases may be relieved, and their unfortunate condition very much mitigated by systematic and careful attention.

A Case of Buccal Chancre.—E. Burke Haywood M.D., Raleigh, N. C. *Trans. North Carolina Medical Society*), recently saw a young lady suffering from

buccal chancre, caused by a kiss given her on the lips by her engaged lover, who was at that time suffering from secondary syphilis. The contagion was communicated by the secretion from a mucous patch on the upper lip of her lover. He was ignorant of the danger of contaminating his lady-love by this manifestation of his affection. He had been under treatment several weeks before for primary syphilis, and thought that he was cured. The young lady, when first seen, had a well-marked chancre on her upper lip, which had existed for more than ten days, and was thought by her to have been caused by a chapped lip. There was much induration of the upper lip, and the parotid and submaxillary glands were much enlarged and very painful. The induration continued for several weeks, and was followed by well-marked secondary symptoms.

Diffused Cerebral Sclerosis.—Dr. Wm. A. Hammond, of New York (*New York Medical Journal*), thinks that the central lesion in cerebral sclerosis may occasionally be reached, when it has not had time to become very extensive or profound. He regards the primary galvanic current passed through the brain, and the administration of chloride of barium, as the best agents in the treatment of the lesion. The chloride of barium may be given in doses of about a grain three times daily. It is usually administered in solution, according to the following formula.—℞. Barii chloridi, ʒ j; aquæ dest. M. ft. sol.; dose: gtts. xij three times a day.

Stricture of the Rectum.—Wm. R. Whitehead, M.D., of New York (*American Journal of Medical Sciences*), believes that an anti-syphilitic treatment of stricture of the rectum is worse than useless. This treatment does harm by increasing the debility of the patient. When the stricture is fibrous it should be very thoroughly divided with the knife or scissors, and kept properly dilated. There should also be made to the diseased mucous membrane above the stricture suitable applications, such as the chloride of zinc, or carbolic acid sufficiently diluted.

The Non-Action of Atropia on Pigeons.—Dr. H. C. Wood, Jr., Philadelphia (*American Journal of Medical Sciences*), in a valuable "Contribution to the Physiological Action of Atropia," remarks that the causes of the non-action of atropia on pigeons seem to be three in number. First and chiefly, absolute obtuseness of the nerve-centres to its action, an obtuseness the cause of which will be explained just so soon as the action of atropia on the nerve-centres of man is known. Second, very rapid elimination of the poison, for he has noticed that the conjoint urino-fecal discharge becomes watery and abundant under the action of the drug. Third, when taken internally, comparatively slow absorption, so that the poison is removed from the blood by the kidneys, etc., as fast as it enters it.

Treatment of Orchitis.—Dr. A. Given, of Louisville, Ky. (*American Practitioner*), has been in the habit, where he has cases of orchitis early, of directing cold alum-water to be constantly applied over the testicles, and the following veratrum mixture to be given in full doses:—Balsam copaib., sweet spts. nitre, paregoric, āā one oz.; Norwood's tr. of veratrum, one dr.; M. Dose, a teaspoonful. The best results follow this practice. Where the disease has existed for a longer time, and the testicle is much enlarged and very painful, the mixture is given; but instead of the alum-water he uses the following: belladonna leaves, aconite leaves, muriate of ammonia, āā one oz.; hot water, a pint; mix. This is to be constantly applied by means of cloths to the parts. Dr. Given has often seen this treatment act promptly.

Subnitrate of Bismuth in Cholera Infantum.—Dr. C. K. Alexander, of Louisville, Ky. (*American Practitioner*), during the summer of 1870 treated about 40 cases of this affection, a majority of which were not seen until they had become chronic. Exclusive of the cases in which complete recovery followed the acute stage in from three to six days, the bismuth was used in every instance, and acted beneficially. It was given as follows:—℞. Bismuth subnit., ʒ j.; syr. zinzib., ʒ iij.; tr. cinnam., ʒ j.; tr. opii, gtt. xviij.; syr. acaciæ, ʒ i.; M. Of this mixture he ordered a teaspoonful four times daily to children from one to two years old. This was continued until all disposition to vomiting had disappeared, and the fecal dejections had diminished in frequency, and become more consistent, which very generally obtained in from three days to a week. After this the remedy was given at longer intervals for a few days and then discontinued. In some cases pepsin was added to the prescription with apparent benefit. Quinine was exhibited in those cases where a malarial element seemed to be present.

Anæmic Amenorrhœa.—Dr. Theophilus Parvin, Indianapolis, Ind. (*American Practitioner*), in an article on "Emmenagogues," states, that in many cases of anæmic amenorrhœa it may be advisable, while improving the general health, to administer remedies which will produce pelvic congestion. A most useful combination in these circumstances is the following favorite prescription of Dr. Isaac Hays, when Surgeon of Wills' Hospital, Philadelphia:—One grain each of dried sulphate of iron, aloes, and white turpentine, made into a pill, and given twice or thrice daily.

Wet Bandages in Fractures.—Guersant (*Medical News and Library*), for all forms of infantile fracture, habitually wets all bandages at the moment of their application, with a resolvent liquid, such as lead-water or camphorated brandy diluted with water, provided the fracture is not complicated with wounds.

Hemorrhage Following Extraction of Teeth.—L. N. Hutchinson, of Big Rapids, Mich. (*Dental Register*), some time ago had a severe case of hemorhage which resisted all the remedies which were in his possession, tannin and subsulphate of iron with the rest. Just at that time he came across a paper of *sugar of lead*. This was mixed dry with tannin on cotton, and applied with a compress, and to his great satisfaction it proved successful. Since that time he has had quite a number of cases, and it has never failed on the first application.

A Severe Case of Epilepsy.—Dr. Reuben A. Vance, of New York (*New York Medical Journal*), has under his professional care a little girl from Williamsburgh, who four years ago sustained a severe injury of the head, which gave rise to extensive necrosis of the frontal and parietal bones. A year ago she was having epileptiform attacks at the rate of a dozen a day. No one, he says, who then saw the child imagined that anything short of trephining would do her any good. Yet, under the careful administration of bromide of potassium, she has completely recovered.

Sulphurous Acid in Typhoid Fever.—Dr. Wilkes, of Ashford, Kent (*Med. Press and Circular*), has been highly successful in the treatment of typhoid fever with minute doses of sulphurous acid. He affirms that the acid arrests the further development of the fever-poison, and thus exterminates the fever. Out of 173 cases of typhoid fever treated, only two deaths occurred.

Dr. Wilkes administers the remedy with syrup of oranges, in water, in doses of from two and a half to twenty minims every four hours, until the patient believes he is tasting lucifer matches.

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE CONSTRUCTION OF ARMY HOSPITALS.

UPON European observers, who attentively and critically watch from abroad the progress of our new civilization in this country, the favorable impressions created by our humanity, our bounteous liberality, and our extraordinary skill and success in providing for the comfort, and the medical and surgical alleviation of the sick and wounded in the late war of the rebellion, are the source of just pride to Americans. The well-being of the soldier—in hospital, camp, and field—was the pivotal centre towards which gravitated all hearts and hands, from every corner of our wide land, during that trying period of our nation's life. It opened a field of noblest effort to patriotic men and devoted women. Such prolific lavishment of money and means has never before, nor since, gilded with redeeming rays the sufferings of war. And the rapidity and efficiency with which our army medical department expanded, from a condition appropriate to profound peace, to meet the tremendous requirements of the war, attested an intelligence among its officers, and a national aptitude and zealous co-operation on the part of their professional brethren from civil life, unequalled, in beneficent effects, even by that clothing of the old army with new military hosts, which ultimately won such world-famed results. Stupendous military hospitals almost magically appeared, which, in means of comfort, in skill of professional succor, and in successful remedial results, challenged comparison with the best ever instituted in the Old World; where, indeed, the American pavilion hospital is now generally commended and followed as a model. An ambulance system, whose essential features have received the honorable seal of foreign approbation and adoption, rose into existence, and grew into perfection, under our national flag. Our admirably-arranged and comfortably-equipped hospital transport ships shared not in that wail of woe and dirge of death that spread from the Black Sea during the memorable years of the allied occupation of the Crimea. The organization of our army medical corps, especially in its official posture towards the rest of the service, whereby the sickened or wounded soldier was severed, during treatment, from his purely military relations, and guarded and protected in a self-governing and appropriate medical sphere, has been imitated by more than one nation across the seas. An unrivalled system of medical and surgical reports and records has secured to science the immense professional fruits of our war, which, it is confidently hoped and expected, some enlightened and liberal Congress will make available to the world by further appropriations of money for their publication. And that sombre *succursale* of our national battle-fields and hospitals, the Army Medical Museum at Washington, contains a collection of scientific treasures that promises speedily to become, if it be not indeed already, more interesting and valuable than any of its kind in the world.

But the crowning medico-military lesson of our late rebellion, like that of every protracted war, was the one taught by the inexorable laws of hygiene: a science which sometimes dwarfs and thwarts the arbitrament of arms, and is co-ordinate in importance with military strategy and state policy. While the public, and even the members of our profession in civil life, allow their appreciation of the value of hygienic rules, as applied to the soldier, to lie dormant in time of peace, and to be roused into activity only by the actual pressure of war, it is gratifying to learn, as we do, from a recent publication by the Surgeon-General's office, that we have, in the medical corps of the army, a silent and unobtrusive, yet most intelligent and able body of workers, constantly engaged, under the inspiration and guidance of their chief, in testing old or solving new problems in hygiene, with view to their profitable application to the improvement of the soldier's physical as well as mental and moral condition.

We have before us "Circular No. 4, War Department, Surgeon-General's Office, December 5, 1870. A Report on Barracks and Hospitals, with Descriptions of Military Posts." It is issued from the Government Printing Office; comprises 527 handsome quarto pages; is unexceptionable in paper and typography; and is illustrated with numerous diagrams and plates. *Quantitatively*, this interesting volume owes four hundred and ninety-two pages of its dimensions to local reports, and descriptions of posts, contributed by the medical officers of the army stationed at the various military posts of the United States, extending from Eastport to Fort Yuma, and from Key West to Bellingham Bay. *Qualitatively*, we are disposed to think that its value to professional readers, outside of the army, will be found to inhere principally in the thirty-three succinct, but pregnant, pages comprised in the exceedingly intelligent, reliable, and instructive Report on Barracks and Hospitals, by Assistant-Surgeon John S. Billings, U. S. A. This officer has discussed his theme with marked ability—

in its hygienic as well as in its purely military relations —and therefore its careful perusal will profitably repay the sanitary student and hygienist in civil life.

To officers of the army, and especially to military commanders and representatives of the Quartermaster's Department, charged, under the existing army system, with the construction and repairs of barracks and hospitals, we hail this offer of hygienic advice with hopeful pleasure. Such a perspicuous and perfectly trustworthy *résumé* of the hygiene of barracks, guard-rooms, and hospitals as Dr. Billings has placed within the *portée* of his non-professional brothers in the army, will prove to them an able and reliable guide, if observed in the performance of their responsible duties; and may we trust that it will also serve as a groundwork of harmonious understanding between them and the post medical officers, and help to smoothe away those differences which have oftentimes so strongly militated against the true interests of the service and the best welfare of the soldier.

Three tables of statistics, collected and presented by Dr. Billings in his report, are mainly new, and are unusually interesting and valuable from a medical point of view. The first table shows the ratio, per 1,000, of mean strength, of sickness and mortality (accidents and injuries excluded), occurring in the United States Army for the calendar years 1868 and 1869; the second table gives the ratio of mortality in the U. S. Army as compared with the U. S. Navy, and the military services of other countries, and with civil life; and the third table shows the ratio, per 1,000, of total mortality (exclusive of deaths from epidemics, accidents, and wounds), due to various classes of diseases, in the United States army and navy, the English army and navy, the French army, the Italian army, and in civil life. The statistics for the U. S. navy we do not remember to have seen published before; while those for civil life are here given to the public in advance of the U. S. census reports.

To Dr. Billings, also, was committed, by the Surgeon-General, the duty of collating for publication the reports by army medical officers above referred to as embraced in this volume. These reports, based upon an excellent system, prescribed by the Surgeon-General in 1868, of preserving the medical histories of military posts, furnish, by their present publication, in addition to a large array of facts bearing upon the hygiene of posts, upon their atmospheric and telluric characteristics, and upon a great variety of conditions and causes affecting the sanitary state of their occupants, much other information which will, doubtless, prove interesting and valuable to officers of the army, and to persons to whom the archives of the Surgeon-General's Office may not be conveniently accessible. The historical reminiscences of many military posts, preserved in these reports, are interesting; and the information given, in nearly all of them, concerning the fauna and flora, geology, mineralogy, and meteorology of their respective localities, evinces a degree of scientific knowledge on the part of the writers which it is rare for the busy practitioners of our profession, at least in civil life, to carry much beyond the curriculum of their pupilage. All of the members of the commissioned medical staff of the army received their appointments only after rigid competitive examinations for their positions, and, fortunately, without the aid of political preference. Most of them have been submitted, during the last decade, to the most varied and trying military and professional experience; and after examining their reports upon sanitary and kindred professional topics, contained in the present volume, we feel confirmed in our confidence in their ample preparation for all national contingencies.

We must return to Dr. Billings' report with a confession of surprise that on so seemingly appropriate an occasion, and from so well-informed a source, there should have come no strong protest, or even moderate recommendation, looking to the disenthralment, from the annual Congressional appropriation of funds for the use of the Quartermaster's Department, of that portion intended for the construction and repairs of hospitals. It may be that by reason of Dr. Billings' official position there may exist some good reason, unappreciable to us, which would render such protest or recommendation ungracious, or not permissible, in his report; or, possibly, the efforts of the Surgeon-General, in his uniformly right and humane direction, have been temporarily checked by his success in obtaining the promulgation of War Department Order No. 118, of November 23, 1870, which was really a great step in advance, and which provided that the medical department, though not permitted to disburse a definite appropriation in its own best way, shall at least prevent such pittance as may be doled out to it from an appropriation made for associated purposes, from being expended in erecting hospitals *upon any other than the Surgeon-General's approved plan*. And, after all, this order, instead of giving the medical department authority to do all that is right, simply enables it to prevent another department from doing what is wrong! Does it even accomplish this? Is there anything in it to prevent the Quartermaster's Department from trenching on and absorbing the portion of the common appropriation urgently required by, and undoubtedly intended by the legislators for, the medical department? So long as the appropriation for hospitals is mixed up, as it now is, with that for barracks and stables, so long will the building of hospitals be a secondary matter. Barracks, stables, and hospitals being clubbed, and included in the same grant, whenever the barracks and stables require a greater expenditure of money, the hospitals necessarily suffer, under the present system. Unquestionably, there should be an analysis, and proper division of the common appropriation. There should be a certain amount of money allotted every year for hos-

pitals only, and that fund should exist and remain solely for hospital purposes. It should be a separate item, and be placed under the Surgeon-General, for his disbursements, through the officers of his own department. But, say the opponents of this reform, would not a medical officer be going out of his line if he had to superintend the erection of a hospital, and to judge whether the repairs were properly done, or of good material? But suppose that medical officers, for the double purpose of protecting the integrity of the hospital appropriation, and of securing, by their personal supervision of the construction and the repairs, the best hygienic conveniences for their patients, elect to perform these extra-professional duties. Is there any conceivable obstacle in the way of their successful execution of them? Are they destitute of intelligence, or of principles of wise economy? Are their garments any more susceptible to dishonest sully than those of army quartermasters? But we are so apt to lose our patience, when reflecting upon the degree to which the efficiency and usefulness of our army medical department are impaired by this neglect to give it an independent appropriation for its hospitals,—the same as it now has for medicines and hospital supplies,—that we summarily suspend the subject for the present.

The concluding recommendation in Dr. Billings' report, relating to post and barrack construction, is a point inviting more earnest comment than we have at present the space to give it. In consideration of the great importance of this subject, and in order to consult the interests of the different arms of service involved, Dr. Billings suggests the expediency of its reference to a competent board, consisting of engineer, quartermaster, medical and line officers, for the preparation of plans and regulations, for the approval of the Secretary of War. To this focus of intelligent solution and settlement do we believe that the subject should be promptly brought; for so long as individual ignorance or caprice is allowed to control the erection of barracks, so long shall we probably continue to have the best fed and best doctored, but the worst sheltered, army in the world.

Reviews and Notices of Books.

THE MEDICAL HERBARIUM; A COLLECTION OF DRIED SAMPLES OF MEDICINAL PLANTS. By T. F. Allen, M.D. Henry M. Smith & Co., 107 Fourth Ave., N.Y., Publishers.

SEVERAL collections of dried samples of medicinal plants have been issued abroad in the form of a serial publication, but this is the first instance of the kind of which we are aware in America.

The undertaking could not have fallen into better hands than those of Dr. Allen, whom we have long known as one of our most accomplished amateur botanists. The specimens have been carefully selected, thoroughly poisoned from the attack of insects, and glued to stout paper, so that they will last indefinitely. To instructors of Materia Medica, and to pharmaceutists, this collection will prove invaluable; and all practitioners, especially those residing in rural districts, would find both pleasure and profit by availing themselves of this means to become familiar with medicinal plants growing in their neighborhood.

Two numbers of the series are already published, containing the more common medicinal plants of the Northern States; rarer specimens from home and abroad are promised in the later fasciculi, which may number twenty or twenty-five. Each fasciculus contains ten specimens.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 16, 1871.

DR. E. R. PEASLEE in the Chair.

DISCUSSION OF DR. GOUVERNEUR M. SMITH'S PAPER ON DIABETES.

DR. WM. H. DRAPER opened the "Discussion of Diabetes" with the following remarks:—

The elaborate historical review of the pathology of diabetes which was read by Dr. Smith at the last meeting of the Academy, illustrated very forcibly what is true of so many problems in disease, that what we sometimes falsely call progress in pathology is only a substitution of one theory for another, a change of base which often involves us in greater difficulties than the one we abandoned.

When Bernard announced in 1849, that diabetes mellitus may be artificially produced in animals by irritation of the floor of the fourth ventricle, the new pathology took definite shape, and diabetes became a functional disease of the liver, the consequence of irritation, central or peripheral, of the vaso-motor nerves that supply this organ. The experiments of Harley and others, demonstrating that liver-glycogenesis could be excited by reflex as well as central irritation, seemed to confirm this view. In stating the serious objections to the exclusive adoption of this theory of glycosuria, we desire to suggest some reasons for the belief that glycosuria is a symptom, not of one, but of numerous morbid conditions.

The principal objection to the exclusive adoption of the theory of diabetes which is based upon liver-glycogenesis, is a clinical one. It is well known that certain cases of glycosuria are always controlled and sometimes entirely cured by restriction to animal diet. These cases, and they are by no means infrequent, neither require nor admit the glycogenic function of the liver for their explanation. They are explained satisfactorily by that defect in the assimilative process by which the conversion of amylaceous and saccharine food is checked—and the series of changes by which the non-nitrogenous elements of our food are ultimately converted into CO_2 and water is interrupted at the formation of glucose. This is the old chemical theory of Bouchardat, and one which is certainly in accordance with the facts observed in the class of cases to which we have alluded. Again, if glycosuria was the necessary result of the excessive formation of animal sugar by the liver, is it not strange that morbid anatomy should not present us with some constant lesion of the liver as the result of the long-continued hyperæmia to which the organ must have been subjected? It is well known that the most diverse lesions have been found in this disease in the lungs, liver, kidneys, and alimentary canal, and that, excepting the nerve-lesions which have been found in a few cases, pathological anatomy has furnished no clue to the seat of the disease.

It is, moreover, worthy of mention that the records of cases of lesion of the floor of the fourth ventricle, the locality in which it is claimed irritation gives rise to glycogenesis, do not uniformly present the symptom of glycosuria in their clinical history. My friend, Dr. Seguin, has furnished me with four such cases, in which nothing is said of the occurrence of glycosuria, though in all there was extensive lesion involving the ventricle and the upper part of the medulla. Again, it may be objected that the experiments upon which the reflex origin of diabetes mellitus is predicated prove more than the exclusive hepatic origin of the disease. Dr. Harley, in his excellent monograph upon diabetes, likens the production of sugar in the liver from reflex irritation, to the muscular contractions which result in the frog's limbs from the application of the galvanic current to the sensory motor circuit. In the glycogenic function of the liver, he says, "the pneumogastric is the analogue of the sensory, and the spinal cord and splanchnic of the motory nerves of the frog's limbs, so that an irritation applied to any portion of the branches of the pneumogastric nerves, spinal cord, or sympathetic reflex glycogenic circuit, is as effectually followed by a secretion of sugar as the application of galvanism to the sciatic nerves of the frog's limbs is followed by muscular contraction." Thus, he continues, "diabetes can be artificially established by applying the irritation to the extremities of the pneumogastric in the liver, as when stimulants are injected into the portal vein; or by irritating the pulmonary branches distributed in the lungs, as when chloroform is inhaled; or by applying galvanism to the cervical portion of the nerves, or by irritating their roots, as when injury is applied to the floor of the fourth ventricle; or by acting on the downward chain, as, *e. g.*, when the splanchnics are divided." Now this analogy is not quite so plain as it at first appears. The pneumogastric is a peculiar nerve, not only in the extensive distribution to some of the most important vital organs, the heart, lungs, liver, and stomach, but in its endowment with a specific sensibility by which it plays an important part in the maintenance of the vital functions, so that an irritation applied anywhere in its course, or in the course of its numerous and complicated connections, may be followed by a variety of effects; and it seems just as possible that the glycosuria which is said to be produced through the irritation of its pulmonary, hepatic, or gastric branches, is the result, in some cases at least, of a disturbance of the pulmonary or gastric functions, as of the hepatic. And this leads us to speak of the second point to which we wish briefly to call attention, viz., the interpretation of the neurotic element in the etiology of diabetes. The generally accepted explanation of the experimental production of glycogenesis through nerve irritation is, that it produces dilatation of the hepatic blood-vessels, a consequent hyperæmia of the liver, thus increasing its glycogenic function. Dr. Dalton, in the succinct and clear review which he gave at the last meeting of the Academy, of the subject of hepatic glycogenesis, described the numerous and diverse conclusions which have been drawn by different experimenters in this field of inquiry. Admitting, however, what seems to be established by satisfactory evidence, that sugar is formed in the liver, are we, therefore, justified in referring glycosuria in all cases to an exaggeration of this function?

This certainly has not been satisfactorily proved, and it has been reasonably suggested that the appearance of sugar in the blood of the general circulation, and in the urine, may be due sometimes to a defect in the pulmonary function, through which the normal sugar production of the liver escapes oxidation. We think that a careful consideration of the physiological experiments, as well as of the pathological conditions under which glycosuria occurs, will show that quite as marked disturbances were produced in the pulmonary as in the hepatic circulation by these experiments and lesions; and, therefore, that the glycosuria may be reasonably regarded as the result, in some cases at least, by a disturbance of the pulmonary function. Dr. Brown-Séquard has recently called attention, in a short paper in the London *Lancet*, to the production of hemorrhage, anæmia, œdema, and emphysema in the lungs, by injuries to the base of the brain. He states, as the result of a large number of experiments, "that in almost all cases of injuries by crushing or section of the pons varolii, ecchymoses were found in the lungs. Sometimes the whole lung was crowded with effused blood, and real pulmonary apoplexy existed. In some instances the effusion took place in the bronchial tubes. Injuries to other parts of the base of the brain, especially the crura cerebri and the crura cerebelli, are sometimes followed by the same effects on the lung, and it is extremely probable that a slight pressure upon the pons varolii by effused blood is sufficient to produce it. Injuries to the medulla oblongata and to the spinal cord have but very rarely caused an effusion of blood in the lungs." He further states, that "A hemorrhage is not the only immediate effect that can be observed after an irritation of the base of the brain by crushing or cutting; an anæmic condition, œdema and emphysema can also be produced;" and M. Ranvier, a distinguished micrographer, who assisted Dr. Brown-Séquard in these experiments, found "that some small parts of the lungs, which were found perfectly white, were absolutely deprived of blood, no doubt through a spasm of the blood-vessels having emptied them of their contents." May not this be the explanation of the so-called tubercular lesions which are found to complicate some cases of diabetes?

When we consider the fact that the sugar found in the blood of the right side of the heart disappears in the passage through the lungs, it seems reasonable to suppose that the presence of sugar in the general circulation and in the urine, may sometimes depend upon defective pulmonary function, as well as upon its excessive formation in the liver. It may be objected, that if this were the case, the presence of sugar in the urine would be oftener observed, considering the great frequency of pulmonary lesions; but it is possible, as Roberts observes, that the existence of pyrexia, in which there is an excessive degree of oxidation, may account for the sugar not appearing in the urine.

Dr. Draper alluded very minutely to the large number of experiments made by the distinguished physiologist, Schiff, in which he succeeded by a variety of mechanical irritations in inducing artificial diabetes. These were mentioned because they illustrate very remarkably the numerous varied morbid conditions under which sugar may make its appearance in the urine.

It is reasonable to infer from the results of Brown-Séquard's experiments, which we have quoted, that there must have been pulmonary lesions in most, if not all, the cases which Schiff describes. Those experiments, especially, in which glycosuria was produced by interference with the circulation, must have caused pulmonary engorgement, and so determined a disturbance of function, which would manifest itself by the phenomena of defective oxidation; and among these the presence of sugar in the blood may surely be reckoned.

As Dr. Smith confined himself mainly to the development of the neurotic pathology of diabetes, we propose briefly to explain the hypothesis which makes the proximate cause of diabetes the suboxidation of the animal and

the food sugars. This hypothesis is based upon the fact, that every atom of nitrogenous or non-nitrogenous food that enters the body, passes through a series of changes, that terminate in the formation of urea, carbonic acid, and water—these latter being the ashes, so to speak, that leave the body when the combustion of the food, through the action of oxygen, is complete. Physiological chemistry has not yet determined the number or the nature of the links in the chain of transformation effected in the food by the action of oxygen, but they are doubtless analogous, to a certain extent, to the changes observed in the oxidation of the substances we use as food, which may be produced by artificial oxidation outside the body. We know, *e. g.*, that starch is convertible into sugar, and that sugar is convertible into alcohol and CO_2 outside the body, by a process of oxidation; and physiological experiment has demonstrated that starch, when acted upon by the saliva or pancreatic fluid, is converted into sugar.

Now we know that certain cases of diabetes are relieved, and in many instances cured, by a withdrawal of amylaceous and saccharine food. The inability to convert or assimilate this kind of food, seems to constitute in these cases the essential cause of the glycosuria. We are ignorant of the cause of this interruption to the complete conversion of the starch and sugar; we do not know whether it is that there is an insufficient amount of proper ferment, supposed to exist in the saliva and intestinal secretions, or whether there is, what amounts to the same thing, an excess of non-nitrogenous food, or whether there are other inexplicable conditions wanting to the thorough oxidation of this form of food. Whatever may be the cause of the failure in these cases to convert the non-nitrogenous food into its ultimate elements, the fact seems incontestable that there is a distinct variety of diabetes mellitus which is produced solely through this defect in the process of digestion, and is entirely independent of hepatic glycogenesis. But there is another class of cases in which dietetic restrictions are followed by only a partial diminution in the glycosuria—and these are cases in which the failure to convert the food sugars extends to the animal sugar also. Here the proximate cause of the symptoms is the defective oxidation of the sugar formed in the body. And as we have endeavored to show in the first part of this paper, it is impossible for us to determine, in the present state of science, whether the disease is in these cases the result of excessive hepatic function, or of deficient pulmonary function, or of more obscure derangement in process of nutrition throughout the body. It may be, and it doubtless is the fact, that the presence of sugar in the blood and urine, in the cases where the power to convert the animal sugars is lost, is the result sometimes of excessive formation, sometimes of a deficient supply of oxygen through loss of pulmonary function, and sometimes through diminished activity in the chemical transformations that take place in the tissues.

This statement brings us naturally to the third point to which we wish to call attention, viz.: that glycosuria is a symptom not of one, but of numerous morbid conditions. All that we can infer from the presence of sugar in the urine, is an incomplete combustion; it may be from excessive ingestion of farinaceous and saccharine food; it may be from excessive formation of animal sugar; it may be from insufficient supply of oxygen, or from some yet undiscovered defects in the process of healthy nutrition.

The hypothesis of suboxidation, as a solution of the phenomena of diabetes mellitus, becomes exceedingly interesting when viewed in its relations to the theory of food as the source of heat and of mechanical power developed in the animal body. It is impossible to enter here upon an explanation of this theory which has been the subject of experimental inquiry by Frankland and Houghton in England, and by Donders, Fick, and others in Germany. It is sufficient to say that, according to this theory, physical force of all kinds is developed in the body, not from the destruction of tissue, as was formerly supposed, but entirely from the combustion of the food. If this is the case, we have in the imperfect combustion of the farinaceous and saccharine food in diabetes an explanation of some of its most striking symptoms. We refer to the diminished temperature and the great muscular debility. Dr. Bence Jones states that some estimate of the loss of power in those who suffer from diabetes may be obtained by calculating the amount of carbon which escapes in 24 hours in the sugars unoxidized. In extreme cases from 20 to 40 ounces of sugar may be lost in 24 hours. This is equal to from 8.4 to 16.8 ounces of carbon, and, if fully oxidized, would generate a force capable of raising from ten to twenty millions of pounds one foot high.

If the proximate cause of the disease lies in defective oxidation, the manifest indication is to improve by every possible means the process of oxidation. The medicinal remedies which of all others may be said to favor this process most markedly, are iron and the alkalies. The alkalies have long maintained a reputation in the treatment of diabetes. It may be objected that the alkaline treatment fails in some cases, but this failure can hardly be urged against the utility of the alkalies in certain cases, for this is incontestable, or the correctness of the explanation—as regards its action.

It only confirms the idea that diabetes is not always the same disease, that it varies in its causes, and until we have solved all the mysteries of its etiology we cannot expect unvaried success in its management. The neurotic pathology of the disease has not as yet suggested any course of therapeutical management which has met with any pronounced success.

It is a melancholy conclusion, but it is the only conclusion to which we can arrive after a fair review of the present knowledge of diabetes mellitus, that, however much the pathology of glycosuria has been elucidated by the discovery of hepatic glycogenesis, we can hardly claim that, so far as the treatment of the disease is concerned, we are much better off than our predecessors were fifty years ago.

In closing his interesting remarks, Dr. Draper gave the following legitimate conclusions in regard to the present state of knowledge of the pathology and treatment of diabetes:—

1st. That diabetes mellitus is clearly a disease of diverse origin.

2d. That the presence of sugar in the urine is an evidence of defective oxidation—suboxidation being the proximate cause of glycæmia and glycosuria.

3d. That in certain cases the source of the sugar is the food.

4th. That in those cases where the glycosuria continues after the withdrawal of all source of sugar from the food, the disease depends either upon excessive formation of animal sugar, or upon loss of power to convert the sugar that is normally produced.

5th. That the relations of nerve-lesion to glycogenesis are as yet imperfectly understood, and that in the present state of our knowledge we cannot say whether in diabetes the fault is excessive sugar-production or defective sugar-destruction.

6th. That for all practical purposes the recognition of deficient oxidizing power in diabetes, is the most valuable point that has yet been established in the pathology of this disease.

At this stage of the discussion the President presented Dr. Ormsby, of Albany, to the members of the Academy, and then called on Dr. Alonzo Clark for remarks concerning the *pathology of diabetes*. Dr. Clark stated that after two lectures at College and the usual professional labor during the day, he was not up to it. At some future time after the College commencement he would be happy to enter into the debate. The speaker was pleased with the preceding paper, and said that we could not go farther into the pathology and treatment of diabetes than Dr. Draper had gone. His opinion was, that the pathology of the lungs, in connection with diabetes, had not been enough attended to.

Dr. John C. Peters had seen but few cases, but contended that there were two varieties of diabetes mellitus:—

1st. That variety which comes from the destruction of animal sugar, and is amenable to treatment.

2d. The form which comes from the non-destruction of animal sugar, and is more serious.

The origin of the affection he believed was the paralysis of the vaso-motor nerves, and remedies to obviate this are called for. Dr. Bence Jones advocated iron and alkalies. Vichy water and alkalies are beneficial, but better adapted to *stout* than thin patients.

In answer to the suggestion of the President as to the geographical limits of the disease, Dr. Abraham Jacobi replied that, being absent from the discussion of the subject by Dr. Smith, he did not know how far he had gone into the subject, but in a medical circle in this city where diabetes mellitus was introduced, he related the only two cases which he had seen in his life. One case of diabetes insipidus had been under his observation since then.

In looking up the statistics of the disease he found the following facts, which were unsatisfactory to him: One author states that it is rare in Germany and Russia; another puts down only 3 cases in southern Germany; and another has 7 cases in Padua, Italy. In London he finds 1 case to 1,400 deaths; in Geneva 1 to 2,000 deaths. It is rare in East India, and tropical climates generally. The doctors in Peru do not know the disease. The islands of Ceylon and Sumatra are said to contain a large number of cases.

Dr. Jacobi did not know why the affection should be rare in hot climates, only that vegetables compose a large portion of the food; but he had been thinking it was a nervous disease. There were a number of well-authenticated cases following strong mental emotions, or moral emotions generally. Hard mental work probably produced as many of the cases of diabetes as of insanity. Professor Sequin, of Vienna, has a list of 140 cases of diabetes, seen at Carlsbad, and a large proportion were Jews—being 35 per cent. of the whole. The Jews, perhaps, produced it by their way of working and living. In this country hard work and anxiety may cause it more and more, as well as insanity.

In order to satisfy himself that it was more frequent in this country, he examined statistics, and found that there were in Boston, from 1811 to 1839, 18 deaths from diabetes; in New York City, from 1805 to 1821, 30 deaths; in Philadelphia, from 1831 to 1840, 20 deaths. The census of the State of New York, for 1865, exhibited 81 deaths from this disease, out of 37,027 deaths—1 in 457—showing more in our State than abroad. Out of 25,167 deaths recorded by the Metropolitan Board of Health of New York for 1869, there were 13 cases of diabetes; of these 7 were native Americans, and 6 of foreign birth—1 death in about 2000 cases, as in Geneva.

Dr. Peaslee inquired of Dr. Gouvr. M. Smith as to the number of deaths in the black race, and of Dr. Jacobi how early in life diabetes occurred.

Dr. Smith informed him that in his fifty-eight cases two were found in the black race.

Dr. Jacobi believed it was rare under ten years. He referred to the case mentioned at length by Dr. Smith, which happened as early as one year and eleven months. The average age of Sequin's cases were between 30 and 35 years.

The President called upon Dr. Robert McIlvaine, late of Ohio, who responded as follows:—He was inclined to doubt the diagnosis of some of the cases put down as diabetes, and thought the difficulty many times was due to an enlargement of the prostate gland. Physicians might put down cases as diabetic, because the patients were told by some one that they had diabetes. He alluded to a case in point, where a patient told him that he had this disease. The patient was asked, "Who told you so?" "A spiritualistic doctor," was the reply.

During the five years spent in Paris he only saw two cases of diabetes—both under 30 years of age. These were put on cane sugar. Some London practitioners advocate this mode of treatment.

An allusion was made to the extensive formation of sugar in uterine life; and Bernard's recent experiments upon dogs, in relation to the saccharine supply of sugar.

While visiting the Banks of Newfoundland, in 1859, he found that cod-livers secrete sugar, and are not unlike the livers of other fish and animals, notwithstanding the laudation of the medicinal effects of cod-liver oil.

Dr. Alonzo Clark called attention to the infrequency of the disease in the country, from statistics, and in explanation said, they were more frequent in this city, because patients resorted here for treatment. He recalled a half dozen of cases: one of 13 years; another, a case of Dr. Linsly, of 10 years. All of these were under 15 years of age.

Dr. Gouverneur M. Smith remarked: At the last meeting, Mr. President, I occupied the attention of this Academy for so long a time in presenting the subject of diabetes, that it is scarcely incumbent upon me to add anything further on this occasion. It must suffice to allude to a few points which have just been referred to, and to add a few facts to those given on opening this discussion. I have before said that many questions relating to diabetes are still obscure; but with the information we now possess, the neurotic theory concerning the origin of the disease explains more of its peculiarities than any other which has been offered. Bernard's experiments in relation to the artificial injuries of different parts of the fourth ventricle, as inducing either, first, an increased diuresis; second, an augmented flow of urine containing sugar; or third, simply glycosuria without any augmented quantity of urine, have each their analogues in disease; the first, corresponding with diabetes insipidus, the second with diabetes mellitus, and the third with cases occasionally observed. As *centric* lesions are often found in diabetes, and as we are aware that *peripheral* irritation and lesions can also induce mellituria by a reflex influence, we are furnished with an explanation of the pathology of many cases of the disorder.

The gentleman has stated this evening, that his attention has been called to a report of four cases in which autopsical examination revealed disease of the fourth ventricle, but in which there had been no diabetes. Nature is sometimes tolerant of organic lesions, even of those occurring in the brain. We may detect by autopsy that the kidneys are in an advanced stage of confirmed Bright's disease, and yet the patients may never have suffered with any symptoms indicative of such condition, or at least not until within a few days of their death. In the cases of disease of the brain alluded to, the urine may not have been carefully ana-

lyzed. It has been shown that in some instances the urine is not increased in quantity, and an examination of the renal secretion for sugar may have been overlooked; other symptoms masking the diabetes. Sufficiently numerous observations have been made to prove that diabetes is sometimes due to centric lesions. Dickinson, Ogle, Richardson, Lockhart Clarke have encountered them, and I have cited a case in this city, which also presented them. That such lesions are *not pathognomonic* of the disease has been distinctly stated, and when they are not found the lesions are peripheral, and may have excited the malady by a reflex influence. Another group of cases depends on centric or distal irritation, and these are the ones which yield more promptly to treatment. Still other cases, more readily remediable, are those occasioned by errors in diet. These points have been partially illustrated in the table of twenty-six cases before presented.

It has been suggested here, that the disease may be referable to a simple defect in vital chemistry, as cases may be partially relieved by a diet regulated according to chemical rules. Every article of food and every drug which we employ is a chemical agent, either a compound or an element, and the same reasoning would attribute every disease we encounter to some chemical cause.

It has been said that the sugar may not be morbidly generated by the liver in diabetes, but merely not evolved through the lungs. Such view need not invalidate the nervous origin of the disorder in certain cases. In various cerebral diseases, and in artificial injuries of the brain, the respiratory functions are disturbed. Melituria may accompany whooping-cough and asthma; relief for the latter affords relief for the former. Pulmonary tuberculosis may be intercurrent to diabetes, and conversely may occasionally excite polyuria, either by impairing respiration or by a reflex influence. Febrile excitement, however, has a tendency to prevent such sequel.

As the relative frequency of the disease has been alluded to this evening, it may be interesting to repeat that out of 80,016 deaths in New York city, for 3 years and 3 months, but 58 were from diabetes, or 1 death in 1,379. In one year the proportion was 1 case to 45,454 of the population, in another, 1 in about 111,111. Thirty-eight were born in the United States; twenty-two in foreign countries. Two of the former were of African descent.

An additional fact is herewith presented confirming a view presented at the last session. Sugar occurs in the milk in the largest proportion of any of its organic constituents. Physiologists contend that this lactose is prepared *de novo* in the breasts, and is not dependent upon the quantity of sugar in the blood, as is inferred by *artificially* injecting sugar into the veins of animals which, under such circumstances, is eliminated by the kidneys. It was suggested, it will be remembered, that the uterus towards the close of gestation, and the *breasts* during lactation, might excite increased hepatic sugar formation by a reflex influence, and that the *animal* sugar thus *naturally* thrown into the circulation might be appropriated by the breasts either *per se*, or after having undergone a slight transition. An analysis of the blood of a healthy nursing woman, made for the purpose of determining this point, seemed to corroborate the view. The urine from the same person contained no sugar. Since reading my paper, I find that Fardel states that M. Blot has observed a physiological glycosuria during lactation, and among about half of pregnant women, and further, that this phenomenon is equally to be observed in the cow. He has simply, so far as I am aware, noted the coincidence, without accounting for the melituria by a special reflex influence, and without assigning any use for the glucæmia. For what purpose does an increased amount of sugar in the blood occur during lactation, if not for the one I have specified? In confirmed diabetes sugar appears in several of the secretions; Bernard has detected it in the saliva, Fletcher and Pary in the perspiration. Nature appears so liberal in the production of sugar during lactation that the quantity unrequired by the breasts is eliminated by the kidneys as in morbid conditions.

Simon, several years ago, noticed that milk was richer in sugar during the earlier months of lactation, than at later periods. This phenomenon may perhaps now thus be explained. The breasts, when beginning to assume activity, are in a condition to induce a sympathetic disturbance of the system, and more apt to excite increased hepatic sugar-formation by a reflex influence. When fully developed, they temporarily, to a certain extent, occupy the position of glandular organs, whose functions are permanent, and consequently their tendency to excite any special or general erethism is diminished.

Dr. W. C. Roberts, Vice-President, remarked:—It is to be observed that diabetes mellitus is attended with an enormous quantity of sugar, amounting in some cases to one, or two, or even 2½ pounds in the 24 hours; a quantity far greater than exists in the urine naturally, or in the blood. The question of vital importance to the understanding of the phenomena of diabetes is, as to how this enormous quantity comes to get into the blood, and whence it is derived. Upon the knowledge of this, or satisfactory reply to the question, depends our hope of ultimately attaining to a prevention and cure of the disease.

Aikin calls it a constitutional disease, obviously produced through error in the process of assimilation, either in the stomach, in solid organs, or in the blood. Now, if the term assimilation means, as I understand it, an absorption of the elements of the blood by the tissues during the capillary circulation, and a conversion of it into their own substance, I think the definition is erroneous. Sugar, although formed from the food in the process of digestion, does not, so far as I know, at least directly, contribute to nutrition; its use being, like those of other hydro-carbons, chiefly to maintain the heat of the body, which, however, is not solely attributable to this cause.

It is certain that all the sugar which in health is needed for the purposes of the economy, which is found in the blood, muscles, urine, etc., never sufficiently in excess to be easily recognizable, or to give rise to pathological phenomena, and easily disposed of in the lungs and by decomposition in the animal fluids, is derived from the starchy substances of the food and the juices of sweet-flavored fruits and vegetables. It was reserved for M. C. Bernard, of Paris, to throw the brightest light which has yet been shed upon the pathogenesis of diabetes mellitus. His experiments, and those of others, have shown that the animal organism has the power of forming sugar altogether irrespective of the nature of the food, and that sugar exists in a certain part of the circulation, namely, from the hepatic veins to the pulmonary capillaries. The sugar-producing organ is the liver. Moreover, it is the only organ in the body which, in the normal state, is found to be impregnated with sugar. Every other organ in the body may be destitute of sugar; but the liver always contains it in considerable quantities, provided the animal is healthy. The sugar which is found in the liver after death, is a normal ingredient of the hepatic tissue. It is not found in other parts of the body, nor absorbed from the alimentary canal, but takes its origin in the

tissue of the liver itself, produced, as a new formation, by a secreting process in the tissue of the organ. Thus the liver has a double secretory function—a bilegenic and a glycogenic one. The liver-sugar is not produced in the blood by a direct decomposition of the circulating fluid in the vessels of the organ, but takes its origin in the solid substance of the hepatic tissue as a natural ingredient of its organic texture. Thence it is absorbed by the blood and transported by the circulation to other parts of the body. This production of sugar, says Bennett, is due to the transformation of another peculiar substance of anterior formation, also produced in the substance of the liver, called glycogene, which is transformed into sugar by means of a ferment existing in the blood.

The speaker referred minutely to the experiments of Drs. Pavy, of Guy's Hospital, Dalton, Bernard, and Bennett, showing the formation of sugar, and said:

Such are the leading facts which seem to be known in connection with the pathogenesis of diabetes mellitus. There seems to be a direct connection between an irritation of a certain portion of the brain and diabetes, and there seems to be an indirect, or reflex one, which stimulate the liver to increased action; both of which tend to place this disease under the head of functional nervous disease, or diseases of disordered innervation, and to localize it in the nervous system, not as a disease however of the brain, for the floor of the fourth ventricle, though sometimes, is not always found diseased. What is the nature — what the cause of this morbid action? Morbid anatomy throws no light upon this inquiry. There is no characteristic lesion. Cases occur which last for years, in which no evidence of cerebral irritation is discoverable during life, or on post-mortem examination. The liver presents no constant appreciable lesion. The floor of the fourth ventricle has been found sometimes diseased and sometimes healthy. Tubercle of the lungs occurs, I believe, rather in the course of, than as a cause of diabetes mellitus.

If a constitutional disease be one which is developed under the influence of agencies generated *within* the body itself, and acting through continuous exercise of its functions, then glycosuria is one. If it depend upon cerebral or cerebro-spinal irritation, direct or reflex, then it is a neurosis. If under this influence, or in consequence of the presence of the sugar in the blood which it is called upon to excrete so profusely, the kidney be stimulated to increased action, the disease does not originate in the kidney, and is not a local disease in that organ. Neither, unless it occurs solely from direct local irritation of the liver, which it never does, so far as I know, is it a local disease of that organ. It depends chiefly, at least, upon increased glycogenesis in the liver, under the influence, in part at least, of what the French call a "vice d'innovation," a perversion or disorder of nervous influence, what we cannot say; for there seems no reason why it should sometimes suddenly attack, without appreciable cause, persons in apparently good health and unexposed to morbid influences, except such as do not ordinarily produce it. That the stomach is never wholly in fault is certain; for although Watson says it may cease to perform its accustomed chemistry upon the food, and upon sugar as an article of food, and secrete from the starchy, and even the nitrogenous elements of the food, a surplus of saccharine matter, yet it cannot be said to originate in, or be wholly confined to the stomach; and this morbid secretion, like the increased glycogenesis of the liver, must have a starting point elsewhere. Abstinence from starchy and saccharine food, while it does lessen, does not wholly remove the sugar from the urine; nor is it well tolerated, nor absolutely indispensable. I suppose it may be said safely, that a mere perversion of the gastric nutrition, or assimilation function, is a sufficient cause of melituria: and I suppose that the same may be said, while admitting its influence as a combined cause with that of the stomach, of the imperfect performance of the *functions of the lungs*, primary or secondary. That it is ever a sole cause, I do not believe. That by failing to decompose an excess of sugar in the blood, it may aggravate, or perhaps even assist in stimulating, by a reflex action, the glycogenic secretion of the liver, is both possible and probable.

Dr. Roberts spoke of the two kinds of blood diseases, viz., those in which the poison is absorbed from without, as in glanders and syphilis, or in the typhoid and exanthematous fevers, and those in which the poisonous agent is generated intra-corporeally, as in glycohæmia and uræmia.

Glycosuria is to all intents and purposes a disorder of the nervous system; but of what kind, and how developed or superinduced, is unknown.

There would seem to be, in some at least, a predisposition to the disease, which makes common causes of disease to take this particular direction. It is a very rare disease. Many medical men, of long practical experience, may go through life without meeting with it; and of 80,000 certificates of death within a few past years, so laboriously examined by my painstaking friend, Dr. Gouverneur M. Smith, 58 only were from this cause. Nevertheless, something, nay much, has already been attained. The quantity of sugar supplied to the blood can be lessened by appropriate diet and regimen, and by Trousseau and Roberts it is affirmed that we may hope to cure a few, and to relieve a large number. The attempt to cure diabetes by confining the patient to a non-saccharine producing diet, although it may be useful in an early stage, fails, because it does not affect the starting-point of the disease, and, addressed wholly to the stomach, it but slightly modifies or interferes with the glycogenic function, or changes the morbid action of that part of the liver.

Dr. J. C. Peters. It is surprising that diabetes is so rare a disease, for Bence Jones and Professor Brucke have demonstrated that healthy urine always contains a small, but appreciable amount of sugar; *i. e.*, the amount of sugar derived from the food, or from the changes going on in the liver and textures, is at all times more than can be destroyed in the circulation, in the lungs, and in the tissues.

The ingestion and manufacture of sugar in the system is always very great; for every grain of starch that is taken as food is converted into sugar. Ptyalin alone will convert 2,000 times its own weight of starch into sugar; fresh pancreatic juice transforms four times its weight; the mucus of the stomach, and the strongly alkaline intestinal juice will do the same. Then, we have the great amyloid or glycogenic function of the liver, by which the hepatic cells separate from the blood a substance called glycogen, or *animal starch*, which rapidly becomes transformed into glucose, or grape-sugar.

All this vast amount of sugar must be oxidized or destroyed in the circulation, in the respiratory process, and in the tissues, and should pass out of the body as carbonic acid and water. The only aid in this process is that afforded by the bile, which slowly converts cane-sugar into lactic acid, and by a healthy and vigorous state of the vaso-motor nervous system. For debility of the sympathetic nervous system causes dilatation and paralysis of the small arteries of the liver and abdominal system generally, followed by a larger flow of blood through the portal system and liver, and more rapid and copious formation of glycogen. This explan-

ation applies to irritation of the fourth ventricle, division of the sympathetic nerves in the neck, irritation of the cerebro-spinal axis from the cerebral peduncles down to the roots of the pneumogastric nerves, etc. etc.; for all these operations and others cause paralysis of the vaso-motor nerves, and congestion of the liver.

The indications for treatment are the free use of oxygen gas; of those remedies that promote the oxidation of sugar, of which iron and the alkalies are the most energetic; and of those remedies which promote the healthy secretion of bile, and depress the glycogenic function of the liver.

Among the *alkaline* mineral waters, the most useful are Vichy, more particularly from the Celestin spring, containing 96 grains of alkali; the Carlsbad water, with one-fourth less alkali than Vichy, but with half a drachm more of sulphate of soda in each quart, thus having an aperient action which Vichy rarely possesses. The *carbonate of soda* has been used successfully by Professor Alonzo Clark; the *bromide of potassium*, by Dr. Bigbie; lime-water by Kepel, Willis, Fothergill, Watt, Frank, and others; *magnesia*, by Eberlee, Willis, Hufeland, and Philips; the *phosphate of soda*, by Latham and Starkey, while Prout considers it an admirable saline purgative; the *permanganate of potash*, by Sampson, Basham, and Bence Jones.

But it has been noticed that the alkalies are particularly useful when diabetes is associated with obesity, while they are useless or injurious in debilitated, emaciated, pale, and nervous subjects. In these latter, the best alkali is the *carbonate of ammonia*, which has been found so useful by Barlow, Golding Bird, and Bouchardat; and it may have to be associated with iron, in the form of the *ammonio-citrate*, with an excess of ammonia. Prout thinks that the citrate of ammonia is the best diaphoretic we can employ.

But in emaciated, debilitated, and anæmic patients the preparations of iron are the best remedies. The *iodide of iron* is a remedy of great promise, but its use should be persevered in for a long time; the *peroxide of iron* is praised by Prout; the *phosphate of iron* by Venables and Prout.

Next to iron, the best tonic is *nux vomica*, which may be aided by astringents—such as alum, creasote, kino, opium, nitric and phosphoric acids.

The best bilious remedies are *rhubarb*, which has been found so useful by Copland, Boglin, Lester, Brocklesby, Morton, Buckwald, and Harris; *sulphur*, which has been advised by many German physicians, and by Copland; *ox-gall* by Hufeland and Copland; *aloes* by Copland.

Among the palliatives, opium is the most useful, but its debilitating effects should be obviated by nux vomica, iron, &c.

Every conceivable remedy has been tried in vain; but in this connection I will mention that in the case of the wife of a physician in this city, who passed 18 ounces of sugar and 3 gallons of urine daily, much advantage has been gained, and strength and embonpoint restored, by the use of arsenicum albi, one-tenth of a grain three times a day, which Legroux thinks he also derived benefit from. In cases of failure of pulmonary energy, the use of oxygen by inhalation, now getting into common use, suggests itself, and has been recommended by Richardson of London, and Bérenger and Féraud in France. So, too, it may be with the use of cod-liver oil and roasted fats, so grateful to the poor patient of whom Dr. Smith told us, who in his delirious dreams looked forward with rapture to the delicious repasts the angels in heaven were preparing for him. These, as fuel for combustion in the lungs, may tend to modify or improve their inefficient or diminished action, and lessen by so much the quantity of sugar in the blood.

These thoughts are crude and immature, but I hope they may stimulate to further discussion, which I hope may not cease until our learned President shall have expressed his views on this obscure but interesting subject.

The President, in summing up, thought that the ground gone over in the discussion was not altogether profitless, although the pathogenesis of the disease could not be altogether explained. He had used the citrate of soda, three drachms in 24 hours, for three weeks, and at the end of that time the sugar had disappeared. Those articles which act on the nervous system seemed to be demanded in this affection.

Dr. H. D. Bulkley said that Dr. Alonzo Clark would furnish, on a future occasion, a paper alluding to a point in diabetes mellitus which had not been touched upon, and suggested that it be prepared for a future meeting of the Academy, to be called up by the President—which was carried.

Dr. Bulkley referred to three cases of diabetes mellitus which came under his observation, the histories of two of which he had prepared for another occasion. In one case, the fluid extract of valerian controlled it. In another case, an unusually large quantity of urine passed—a quart an hour.

The announcement was made that Dr. T. Gaillard Thomas would read a paper, March 2d, on "Cancer from Colloid."

The Academy adjourned.

Correspondence.

VITAL STATISTICS AND THE HEALTH BOARD.

To the Editor of the Medical Record.

Sir—An anonymous and somewhat splenetic writer has just vented in your columns his ill-humor against the Health Board. Permit me to correct a few of his statements, not merely for his edification, but for that also of a small body of medical gentlemen who having suffered (as he has probably) for non-compliance with "a certain section of a certain code of sanitary ordinances," entertain no "good opinion of the law," and endeavor by their reflections upon the Department to "give a Roland for an Oliver," or, as your correspondent expresses it, a "Quid pro quo."

The gentleman would seem to imply that the thirty-six hour section was enacted by the present Board. Such also is the opinion of many others, who, however, are mistaken. Said section was a portion of the Sanitary Code of the Metropolitan Board of Health "in the good old days," and was adopted by the succeeding Board of Health Department. The section is certainly "now being enforced by the Health Department," and with the most gratifying results in securing "accurate statistics"—more accurate, perhaps, than those of any other city in the world. We are not now embarrassed by death certificates straggling in weeks, and even months, after having been intrusted to undertakers. Undertakers are now unable to sequester bodies of strangers and others in private morgues in order to obtain extortionate sums from relatives. Our books now exhibit the actual mortality of the city. For these reforms we are indebted to the prompt and willing response of the great mass of appreciative and intelligent physicians to our requirements, and for this we return "our most humble and hearty thanks." It is true that when such energetic action of the Board was first taken, some physi-

cians suffered—less however in money than in time. There has not been a single instance in which the Board has refused to remit the penalty incurred, upon a valid excuse having been properly offered—such as ignorance of the law and former recognized custom, or the fact of not having become cognizant of a death within sufficient time to comply with the regulation. Some gentlemen who have appeared at the office of the Department in a towering passion, threatening to "smash the machine," as one elegantly expressed it a few days since, insulting the officials, and refusing to offer any explanation, could scarcely anticipate much consideration. I am loth to suppose "Quid pro Quo" could have been one of these.

That the ordinance is perfectly practicable may be judged from the fact that within the past five weeks out of over 2500 certificates of death received, there have occurred but 38 instances of violation of the section, and 18 of those were cases in public institutions, whose physicians usually render satisfactory excuses.

In regard to the statistics given to the press, "Quid pro Quo" labors under another error. Every Saturday, at 12½ P.M., the reporters are furnished with the consolidated account of births, marriages, and deaths, registered during the week up to noon of said day. The "Lightning Calculator" could hardly do better. It is impossible to have such deaths classified until the following Monday. A report is then prepared and read to the Board, at its next meeting on Wednesday. That report also is given to the press. If "Quid pro Quo" will refer to the proceedings of the Board of Health, reported in the *Herald*, *Times*, or *Tribune* of the 9th and 16th inst., he will find the latest "movements of epidemics," both here and in Europe, described by Dr. Morris and myself.

"Quid pro Quo" takes occasion also to reflect upon the present "Circumlocution Office" for not dispensing "information to the profession." I would respectfully inform him that mortuary reports are printed weekly and distributed gratuitously by this Bureau to the principal medical journals and societies of New York, to American and Foreign Health Departments, and to those physicians who particularly interest themselves in vital statistics.

Finally, the Health Department is well aware of its responsibilities to the profession. Its most earnest efforts are constantly directed to the advancement of the interests of the profession; but in order to further such efforts it is essential that the profession itself should recognize its own responsibilities, and should co-operate generously with the department, even to the extent of occasional individual self-sacrifice.

Very respectfully, your obedient servant,
CHAS. P. RUSSEL, M.D.,
Register of Records.

BUREAU OF RECORDS OF VITAL STATISTICS,
Health Department of the City of New York,
March 18, 1871.

EXTRAORDINARY INSTANCE OF FEMALE ENDURANCE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—It is reported of Indian women that when on the march they give birth to a child, no delay is occasioned, but taking up their newly-born they resume their travels as if nothing had occurred.

The following narrative, which I had from the lips of the actor herself, and whose authenticity I have no reason for doubting in any of its particulars, goes far to show that civilization now and then outmatches any vigor of barbarism.

Mrs. M——, born in Germany, was married at the age of 14 years and 4 months. About a year afterwards, when seven months pregnant, one October day she visited, with a young friend, Greenwood Cemetery. A funeral procession passing along its avenues attracted their attention, and they followed it till it halted at a tomb. They saw the coffin borne within its gloom, and watched the departing cortége. The iron door of the vault, through some oversight, was left ajar. Curiosity led the loiterers to open it, when Mrs. M—— entered the narrow passage. She made her way to the new coffin, and while viewing it, heard the door shut with a sudden spring, leaving her in total darkness. This was about half-past two P. M. It being necessary to go to Jersey City, where the funeral party belonged, for the key, it was not till seven P. M that she was liberated. In the dreadful interval, her baby was born, the mother tearing asunder the cord. Wrapping the infant, which was alive, in a shawl, after finding she could not ride in the cars from their painful jar, she walked with her friend very slowly to the South Ferry, a distance of about two and a half miles—carrying the child, in her anxiety, the most of the way, herself, and crossing it made her way, on foot, at least a mile farther, to her home at No. 211 Elm street. Thence laying down the babe, she crossed the street to the opposite corner, her husband being in the country, aroused her midwife, and did not get fairly to bed till one o'clock A. M. The next morning, contrary to advice, she walked to Grand street, three blocks off, for baby linen, and returned. Four days subsequently, she was washing clothes at the hydrant in the yard. The child is now a large, healthy, blooming girl of ten years, within which time her mother has given birth to three or four other children, besides having had two miscarriages, and is now strong, robust, and still young-looking. She reports a great grandmother still living in Germany at the age of 112 years, who is the mother of twenty-two children. J. G. SEALL, M. D.

No. 354 West 30th street.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 5th, 1871, to March 18th, 1871, inclusive.

MILLS, MADISON, Surgeon.—By S. O. 103, War Department, A. G. O., March 14, 1871, to report to the Commanding General, Department of the East, for assignment to duty.

HAMMOND, J. F., Surgeon—By S. O. 47, Headquarters Department of Texas, March 6, 1871, assigned to duty as Post Surgeon at Fort Richardson, Texas.

SMITH, J. R., Surgeon.—By S. O. 107, War Department, A. G. O., March 17, 1871, relieved at Jefferson B'ks, Mo., and assigned to duty as Post Surgeon at Fort Wayne, Mich.

IRWIN, B. J. D., Surgeon.—By S. O. 107, War Department, A. G. O., March 17, 1871, upon being relieved at Fort Wayne, Mich., to report in person to the Commanding Officer, Department of the Missouri, for assignment to duty.

WEEDS, J. F. Surgeon.—By S. O. 45, Headquarters Department of the South, March 4, 1871, to accompany detachment of recruits from Nashville, Tenn., to Indianola, Texas, and after completion of this duty to return to his station—Nashville, Tenn.

HARTSUFF, A., Assistant Surgeon.—By S. O. 29, Headquarters Department of the Columbia, February 25, 1871, upon being relieved at Sitka, Alaska Ty., to report in person at these Headquarters, for assignment.

Phillips, H. J., Assistant Surgeon.—By S. O. 29, Headquarters Department of the Columbia, February 25, 1871, assigned to duty at Sitka, Alaska Ty.

O'Reilly, R. M., Assistant Surgeon.—By S. O. 40, Headquarters Department of the Platte, March 10, 1871, assigned to duty as Post Surgeon at Fort Laramie, Wy. Ty., upon being relieved at Sidney B'ks, Neb.

Heizmann, C. L., Assistant Surgeon.—By S. O. 40, Headquarters Department of the Platte, March 10, 1871, to accompany 4th Infantry from Fort Laramie, Wy. Ty., to Sidney B'ks, Nebr., and on arrival report for duty as Post Surgeon at that post.

Obituary.

JEREMIAH VAN RENSSELAER, M.D.,

NEW YORK.

Another of the Nestors of our profession, "an old New Yorker," has just passed away. Dr. Van Rensselaer died in this city on the 7th inst., at the advanced age of 78 years, and was buried from St. Paul's Chapel on the 11th inst. Drs. Delafield and J. W. Sterling, fellow-students with him in London in 1818, were present at his funeral.

Dr. Van Rensselaer was born at the "Old Mansion," Greenbush, Rensselaer county, on August 4, 1793. He was a descendant of the early Dutch settlers who, in 1637, founded the colony of "Rensselaerwyck." After completing his academical education at Yale College, Jeremiah came to this city in 1813, and entered the office of his uncle, Archibald Bruce, M.D., Professor of Materia Medica and Mineralogy in the University of New York, and in extensive practice. Here he acquired and cultivated that taste for the natural sciences for which he, in after life, was distinguished. After being admitted to the degree of Doctor of Medicine in 1817, he went abroad and spent three years in attendance upon the lectures and hospitals in Edinburgh, London, and Paris. In 1819 he, in company with his friend Dr. Howard, of Baltimore, made the ascent of Mt. Blanc. As they were the first Americans to make the ascent, the account of their trials and hardships (published in the newspapers) attracted great attention. On his return to New York he was extensively engaged in the practice of his profession, was for a long series of years corresponding secretary of the New York Lyceum of Natural History, and during the winter of 1825 he delivered a course of lectures on geology before the New York Athenæum with great success. In 1840 he visited Rome and remained in Europe for three years. In 1843 he resumed practice. In 1852 he retired from active pursuits to the care of his estates, again occupying the "Old Mansion" at Greenbush. In 1867 he again visited Europe. In October last he returned to this city in feeble health. He succumbed to an attack of pneumonia of a few days' duration. Dr. V. R. was twice married, and leaves one son and four grandchildren to deplore his loss and revere his memory. He was a polished and elegant scholar, a beloved physician, an upright citizen, a Christian gentleman, a man of honor and of noble aspirations.

Massachusetts Medical Society.—Of the eight hundred and fifty deceased members of the Society whose ages are recorded, the average duration was fifty and a half years.

Prof. S. Skoda.—This distinguished clinical teacher has vacated the chair of clinical medicine at Vienna, on account of ill-health.

Medical Items and News.

Prof. Geo. T. Elliot, M.D.—At a stated meeting of the New York Medical and Surgical Society, held Feb. 25, 1871, the following resolutions were unanimously adopted:—

Whereas, Our Heavenly Father has taken from among us our late associate Dr. Geo. T. Elliot:—

Resolved, That in the decease of Dr. Elliot, the members of the New York Medical and Surgical Society are called upon to mourn the loss of a genial companion, a good physician, and a true man. In the prime of his life and usefulness he has been taken.

Resolved, That while *we* mourn a dear friend, the profession at large have lost the counsels of a ripe experience, and the student a teacher of rare ability.

Resolved, That although dead, his influence survives him, teaching those who remain that the most enduring fame is that won by unremitting diligence, a constant devotion to the advancement of our noble profession, and a tender care of the sick, the needy, and the destitute.

Resolved, That a copy of these resolutions be preserved in the archives of the Society, and also that a copy signed by the President and Secretary be sent to the family of the deceased.

Geo. A. Peters, M.D.,
John T. Metcalfe, M.D.
Committee.

On motion it was resolved that the foregoing resolutions be published in the Medical Record and the *New York Medical Journal.*

Thomas F. Cock, M.D., *President.*
Robt. Watts, M.D., *Secretary.*

Resolved, That the Medical Board of the Nursery and Child's Hospital have heard with deep sorrow of the death of Dr. George T. Elliot, who was a member of the staff from the foundation of the institution, a period of seventeen years, first as attending, and subsequently as consulting physician, and contributed so much to its welfare and prosperity.

Resolved, That we, his former colleagues, hereby record our high appreciation of the valuable and efficient services which he so generously gave to the Hospital and to us at all times; our admiration of his splendid talents, his great practical skill, and his powerful influence in this and similar institutions.

Resolved, That we ever cherish the memory of our late esteemed associate, and tender to his bereaved family our warmest sympathy in their great loss.

T. M. Markoe, M.D.,
J. J. Hull, M.D.,
Committee.

Wm. B. Bibbins, M.D.—At a regular meeting of the District Medical Society of the County of Hudson, New Jersey, held at the Jersey City Charity Hospital, February 7, 1871, the following preamble and resolutions were adopted:

Whereas, It has pleased God to remove from his earthly labors our esteemed friend and associate, Wm. B. Bibbins, an honorary member of this Society, therefore be it

Resolved, That while we bow in submission to the Divine will, we deeply deplore the loss of a valued friend.

Resolved, That in his death we are called upon to mourn the loss of an active worker in the cause of medicine, of eminent scholarship, an able adviser, and a good and conscientious man.

Resolved, That a copy of these resolutions be transmitted to the New York Medical Journals for publication.

B. A. Watson, M.D., *President.*
J. H. Comfort, M.D., *Secretary.*

Dr. E. Herman Smith, of St. Paul, Minn.—At a meeting of the Board of Attending Physicians and Surgeons of St. Joseph's Hospital, the following resolutions were adopted:—

Whereas, It has pleased Divine Providence in its inscrutable wisdom to remove from our midst our colleague, Dr. E. Herman Smith, in the plenitude of his usefulness, and in the full exercise of his rare abilities as a scholar and physician.

Resolved, That we, his colleagues, wish in the most earnest terms to express our recognition of the loss our profession, and particularly this hospital, has sustained in his early and sudden removal, and to tender our warmest sympathy and condolence to the circle of relatives and personal friends who mourn his early death.

Resolved, That a copy of these resolutions be transmitted to his family, and also that they be published in the St. Paul papers and in the Medical Record of New York.

Sam. Willey, M.D., *President.*
Chas. E. Smith, M.D., *Secretary.*

American Medical Association.—The Twenty-second Annual Session will be held in San Francisco, Cal., May 2d, 1871, at 11 A.M.

The following Committees are expected to report:—On Cultivation of the Cinchona Tree. Dr. Lemuel J. Deal, Pennsylvania, Chairman; On Inebriate Asylums, Dr. C. H. Nichols, D. C., Chairman; On Institutions for Inebriates, Dr. Joseph Parrish, Pennsylvania, Chairman; On the Structure of the White Blood Corpuscles, Dr. J. G. Richardson, Pa., Chairman; On Vaccination, Dr. Henry A. Martin, Mass., Chairman; On the Comparative Merits of Syme's and Pirogoff's Operations, Dr. Geo. A. Otis, U. S. A., Chairman; On Lithotrity, Dr. E. M. Moore, New York, Chairman; On Veterinary Medicine, Dr. Samuel D. Gross, Pa., Chairman; On Protest of Naval Surgeons, etc., Dr. W. S. W. Ruschenberger, U.S.N., Chairman; On National Medical School, Dr. Francis Gurney Smith, Pa., Chairman; On American Medical Association Journal, Dr. James P. White, New York, Chairman; On Criminal Abortion, Dr. D. A. O'Donnell, Maryland, Chairman; On Nomenclature of Diseases, Dr. Francis Gurney Smith, Pa., Chairman; On National System of Quarantine, Dr. J. C. Tucker, California, Chairman; On What, if Any, Legislative Means are Expedient and Advisable to Prevent the Spread of Contagious Diseases, Dr. M. H. Henry, New York, Chairman; On Renewal of Prescriptions by Apothecaries without Authority, Dr. R. J. O'Sullivan, New York, Chairman; On American Medical Necrology, Dr. C. C. Cox, D. C., Chairman; On Medical Education, Dr. Ely Geddings, South Carolina, Chairman; On Medical Literature, Dr. P. G. Robinson, Missouri, Chairman; On Prize Essays, Dr. T. M. Logan, California, Chairman.

On the Climatology and Epidemics of—Maine, Dr. J. C. Weston; New Hampshire, Dr. A. P. Stackpole; Massachusetts, Dr. H. I. Bowditch; Rhode Island, Dr. C. W. Parsons; Connecticut, Dr. J. C. Jackson; New York, Dr. W. F. Thoms; New Jersey, Dr. C. F. J. Lehlbach; Pennsylvania, Dr. D. F. Condie; Maryland, Dr. C. H. Ohr; Georgia, Dr. Juriah Harriss; Missouri Dr. F. E. Baumgarten; Alabama, Dr. R. F. Michel; Texas, Dr. S. M. Welsh; Illinois, Dr. R. C. Hamil; Indiana, Dr. J. F. Hibberd; District of Columbia, Dr. T. Antisell; Iowa, Dr. J. C. Hughes; Michigan, Dr. G. P. Andrews; Ohio, Dr. T. L. Neal; California, Dr. F. W. Hatch; Tennessee, Dr. B. W. Avent; West Virginia, Dr. E. A. Hildreth; Minnesota, Dr. Chas. N. Hewitt; Virginia, Dr. W. O. Owen; Delaware, Dr. L. B. Bush; Arkansas, Dr. G. W. Lawrence; Mississippi, Dr. J. P. Moore; Louisiana, Dr. S. M. Bemiss; Wisconsin, Dr. J. K. Bartlett; Kentucky, Dr. L. P. Yandell, Sr.; Oregon, Dr. E. R. Fisk; North Carolina, Dr. W. H. McKee.

Secretaries of all medical organizations are requested to forward lists of their delegates, as soon as elected, to the Permanent Secretary.

Any respectable physician who may desire to attend, but cannot do so as a delegate, may be made a *member by invitation*, upon the recommendation of the Committee of Arrangements.

W. B. Atkinson,
Permanent Secretary.

The Œ Society of New York.—The eleventh annual reunion of this Society took place at the Bellevue Hospital Medical College, Feb. 27. Addresses were made by Dr. E. C. Harwood, the retiring President; Professors McCready, Barker, Sayre, Doremus, and MacWhinnie. The following gentlemen were elected for the ensuing year:—J. W. MacWhinnie, M.D., President, N. Y.; John Kinkhead and Robert Taylor, Vice-Presidents; Geo. F. Bates, Secretary; C. E. Bruer, Treasurer.

Proportion of Prostitutes to the Population of Unlicensed Cities.—Dr. Edmund Andrews, of Chicago, Ill. (*Chicago Medical Examiner*), furnishes an elaborate paper on "Prostitution and its Sanitary Management," showing, with other facts, that the proportion of registered prostitutes to the population is greater in cities adopting the license system than in those not adopting it. In Chicago there is one prostitute to 230 inhabitants; New York, 1 to 518; London, 1 to 544; Liverpool, Bristol, and Plymouth, 1 to 193; Glasgow, 1 to 394; Madrid, 1 to 270; Manchester, 1 to 557; Birmingham and Sheffield, 1 to 709.

Prof. Oppolzer, of Vienna.—A female Vienna correspondent of the *New England Medical Gazette* thus describes this distinguished Professor: The opening scene of Prof. Oppolzer's ward of the Vienna University reminds one of a raid of Prussian Uhlans, 250 strong, each putting forth his energy and strength to gain a foothold within hearing distance of the teacher. The out-door patients that throng his ward every morning are a motley group of all nations; but the most numerous and peculiar of all are the Polish Jews. Among the fraternity, with their two flowing curls, a pendant before either ear, with their velvet skull-cap, and their black coats almost trailing, one not unfrequently finds a brother from Jerusalem, from Turkey, and even from Arabia. Precisely at nine in winter and seven in summer, Prof. Oppolzer's slight, tall, and somewhat bent form is seen entering the hospital, his step a little tottering and feeble. The most important case presented becomes the theme of the morning lecture, and instead of remaining an hour, he frequently stays three. And woe to the student who has taken the case, if he has not informed himself in regard to all its minutiæ. Electricity is very generally applied in chorea, tabes, paralysis, etc. Cold water applications are very much advocated there in inflammatory cases.

A Gift to the Presbyterian Hospital.—A donation of the surgical instruments and apparatus, office-table, reclining-chair, and medical library of the late Thaddeus M. Halstead, M.D., with a bust of the late J. Kearny Rodgers, has been made to this new hospital in New York, by Mrs. Halstead.

Original Lectures.

PROLAPSUS UTERI, ITS CHIEF CAUSES AND TREATMENT.

By THOMAS ADDIS EMMET, M.D.,

SURGEON-IN-CHIEF OF THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

(Read before the N. Y. State Medical Society, Feb. 7th, and the Medical Library and Journal Association, March 10th, 1871.)

Mr. President—I present for the consideration of the Society the subject of prolapse of the uterus, with its chief causes and treatment. So far as this extensive field and the time allotted me will admit, I shall review the local treatment where the displacement has resulted from uterine disease. My chief purpose, however, relates to the application of surgical means under circumstances where the local treatment would be likely to fail, if relied upon exclusively.

The term "falling of the womb," as used by the profession at large, is without meaning; it is but the expression of a symptom, without conveying the slightest idea as to the cause or true condition. It is like unto other terms of common use, which do harm by misleading those who do not think. With many, as soon as a diagnosis is made of "falling of the womb," the dominant idea at once presents itself to introduce a pessary, without any clear appreciation of the cause, and with the effect of frequently aggravating the condition by the means resorted to for relief. It is empirical thus to treat the effect as the cause, and but little progress can be made in the science until this error is fully appreciated. Prolapse of the uterus should mean simply an effect, from some cause, by which the organ remains persistently lower in the pelvis than in a state of health. To establish a uniform standard is impossible, as there is an individuality of position normal to each female. In other words, we will sometimes discover, in a perfectly healthy female with a large pelvis, a degree of displacement which should be accompanied, were it the disease, with well-marked symptoms indicative of the condition, and yet she remains unconscious of any deviation from health.

The position of the uterus, when uninfluenced by disease, will vary frequently in the same individual. But as a standard, *Savage* describes the roof of the pelvis and normal position of the uterus as follows:—"A plane passing horizontally backward from just below the subpubic ligament to the attachment of the utero-sacral ligaments at the sacrum, would indicate the level where the utero-vesical peritoneal reflexions pass from the pelvic organs to the pelvic walls; this would also indicate the situation of the vesico-vaginal septum; that is, the base of the bladder and comparatively unyielding side (upper column) of the vagina." "At the commencement of the posterior third the finger comes in contact with the os and cervix uteri, the uterus projecting the whole of its neck downwards and backwards through a hole as it were, in that part of the roof; the remainder of the roof is formed by the vaginal cul-de-sac, or curved extension of the posterior (dilatable) side of the vagina, the utero-sacral ligaments completing this structure up to the sacrum." The uterus is supported in this plane by the utero-sacral ligaments, the sub-peritoneal pelvic cellular tissue, the broad ligaments, and lastly, the round ligaments. As the uterus descends in the pelvis the strain is distributed in the order above given, and does not put the round ligaments on the stretch until it is about to escape from the vaginal outlet.

The chief causes of prolapse of the uterus may be grouped under four heads, and it results from one of these, or several combined. First, the uterus may be crowded down into the pelvis from abdominal pressure above, by the weight of some extraneous development in the cavity, from habitual constipation, tight lacing, &c. Second, the prolapse resulting from increased size of the organ, from imperfect involution, obstructed circulation in the organ itself, or elsewhere, from pathological changes of its tissues, the effect of inflammation, or from the development of tumors intimately connected. Third, after parturition the vagina may remain dilated, with a loss of tone in part or throughout the canal. Fourth, from laceration of the perineum, we find rectocele and cystocele resulting, and with the prolapsing vaginal walls detect the descending uterus at various points, from a slight displacement to complete procidentia.

It is beyond the scope of this paper to enter into a consideration of the first group of causes, acting mechanically from the abdominal cavity to depress the uterus below; I will therefore dismiss this subject by reference only to the effect of constipation. It must be borne in mind that the rectum in the female is shorter, much larger in diameter, and straighter than in the male, and I think that in regard to size, the colon in the female is also larger. The rectum is seldom found empty, except immediately after defecation, and as a sluggish condition of the bowels is the rule with the vast proportion of females, fæcal accumulation sometimes takes place to an enormous extent, even in individual cases, where more particular attention is paid to some regularity of habit. Apart from the mechanical effect directly exerted on the uterus by this state of habitual constipation, the organ and its appendages are kept in a state of chronic engorgement from obstruction to the venous circulation, with consequent increase of weight. Savage, in his work on the female pelvic organs, states that "venous obstruction in the course of the ascending cava or spermatic veins influences immediately the state of the pelvic venous circulation; all the pelvic veins soon become surcharged with blood. In cases where the free return of blood into the general system has been obstructed in this way, the pelvic veins become varicose, and the meshes of the pelvic cellular tissue full of such enlargements." With a full appreciation of the fact that within a given space no other portion of the body contains such a vast network of vessels, and from the erectile character of the tissues within which these vessels are matted, so as to give an almost incredible capacity for the accumulation of blood, when any obstruction occurs to the venous circulation, we can readily understand how little is to be accomplished by any mechanical support to the uterus, or from local treatment alone. Farther, these anatomical considerations clearly explain why, with this condition of habitual constipation, we so frequently find the uterus too low in the pelvis, with more or less congestive hypertrophy, and among a class of patients as the result of an artificial and indolent life, spent without purpose. Every secretion of the body has become perverted, the nervous system shattered, and the capillary circulation feeble, as shown by cold extremities and frequent headaches.

Menstruation is irregular, either as to time or quantity, but as a rule scanty. They are hypochondriacs, and have long contracted the habit of being sick, the most serious complication of all others. It is true that these symptoms exist to a greater or less degree in all uterine disorders, yet here, with a train of symptoms pointing most forcibly to the uterus as the main seat of disease, I can but consider the abnormal local condition as an expression only of that of the whole sys-

tem. The fact is, on careful investigation of such a case we are unable to detect a sufficient cause in the local condition to account for the continual backache and inability to stand. The neck of the uterus is usually soft, and may be the seat of a slight erosion; it is frequently tender on pressure, but nearly every portion of the vagina is found equally so. A vaginal leucorrhœa may exist with a slight follicular discharge from the uterine canal. I have found such cases more frequently among the sterile and the unmarried, between thirty and forty years of age, where nature has begun to enter her protest against a blighted sexual life, spent in violation of her laws. Local treatment may be needed, but it is secondary, and futile of relief, in comparison with the benefit to be derived from that instituted by the skilful practitioner who places the whole field of medicine under contribution. The mental and nervous condition of the patient has become so perverted frequently, that for the time being she must be regarded to a certain extent as insane. For her relief her physician must at once attempt to gain her entire confidence, so as to have her so completely under his control as to be able to exert every moral influence, and without it he will make but little headway. She must be inspired with the belief of her recovery beyond question, and in her desire to carry out the wishes of her physician, she gradually begins to think less of herself. So thoroughly impressed are such cases with the belief that they fully understand their (own) individual condition better than any one else, that without this essential relation exists, the physician will be met at every point with some well-balanced argument to defeat every effort on his part to break up the confirmed habits of an invalid. So essential do I regard this personal influence, that for many years I have refused to undertake the treatment of such extreme cases, except in a private hospital where I can exercise the influence with the feeling, on the part of the patient, of entire dependence on my will. The next thing to be done is to regulate every habit of life, correct the condition of the bowels, bring about a proper assimilation of food by a judicious diet, and to restore a healthy circulation and action of the skin, by means of Turkish baths. When the patient is too feeble to take a proper amount of exercise, the muscular development must be brought about by rubbing, and a proper movement of the limbs. Coffee, opium, and the indiscriminate use of whiskey and brandy, must be given up at the beginning, as so much poison in their condition, while the moderate use of tea in most cases is advantageous. As the powers of assimilation are feeble, the food should be given at regular intervals, simple in character, concentrated in form, and moderate in quantity. For the same reason, as the digestion is feeble, all preparations of iron and many of the tonics, although needed, are worthless until this condition has been improved. In treating females suffering from uterine disease, we should never lose sight of the condition of the portal system, from its connection with the pelvic circulation,—but more particularly in its relation with the function of digestion. At dinner, taken in the middle of the day, a wineglass of old sherry, or a strong Burgundy claret, will aid digestion, while all malt liquors, as a rule, are injurious. To produce a good night's rest, in such as are unable to take any exercise during the day, the use of anodynes must be avoided if possible, while chloral is the least objectionable, but the bromide of sodium answers better in the majority of cases. If possible, the patient must be made to sleep from fatigue; she should retire early, and while in bed be well rubbed from head to foot, and finally, while lying on the back, with a bed-pan under her hips, have a basin or more of hot water slowly pumped into the vagina. This has a most soothing effect, and so much so, that the patient is frequently asleep before the nurse has finished her duties. The room should be moderately cool and well ventilated, the light extinguished, and the patient left alone. Many are exceedingly nervous and hysterical at the outset, but while exhibiting every kindness, firmness must be maintained and no sympathy wasted, with the result, that soon a healthier tone manifests itself. There is no better remedy for nervousness or hysteria, to improve the moral condition, than to leave the patient entirely to herself. This course is apparently a harsh one, but it is kindness in the end, for unless some impression can be made, and none better for the purpose than to arouse at first a feeling of indignation, the patient can seldom be taught to control herself, until she is forced to learn that this can be done in the beginning of an attack, before self-restraint becomes impossible. It soon becomes a matter of pride to exert this control; it has a healthy influence, and the result is that I seldom see any nervous manifestations among my patients after the first struggle.

Every day the patient must take a certain amount of exercise, be in the open air as much as possible, either walking or riding, and not, by sparing her complexion, lose the benefit of the sunlight. I have observed such rapid improvement in the strength of feeble children produced by exposing the whole body to the action of the rays of the sun, that I have often thought, were it practicable to institute even partially this treatment in these cases, we would obtain most excellent results.

I have thus attempted to give a general outline of the constitutional treatment, as it were, applicable to one class, but which in fact must in a degree have a bearing on all diseases peculiar to the sex. It is impossible, with so extensive a subject, to do more, leaving the details to be supplied by the judicious practitioner. I have avoided any reference to local treatment, from the fact that it is necessary to bring the health of the patient up to a certain point before any active means can be instituted with success. As a means to relieve the local irritability, the congestion, and at the same time give tone to the parts, the use of large hot-water injections into the vagina is most valuable. A pint or two of hot water at 98° or 100° F., thrown into the vagina, will at first cause a certain amount of congestion of the vessels; if the injection, however, be increased to a gallon or more, and administered slowly by an attendant, with the hips elevated so that every portion of the vagina is opened by the water retained within the passage, the vessels will contract. On passing the finger into the vagina after an injection properly administered, the canal will be found smaller, as if an astringent injection had been used,—and the uterus will be higher in the pelvis. It will be noticed also that the sensitiveness has been diminished. By the use of cold water the same effect is produced at first, but when reaction takes place, the vessels will remain more engorged than before. All my patients, without regard to the special local form of disease, receive one or two such injections a day, only the quantity and temperature being varied for the individual case. It is not an empirical or theoretical procedure, but founded upon sound principle and observation. Some eleven years ago, when cold water injections were in general use, I satisfied myself that the practice was hurtful, and with views of my own, in private practice substituted hot water. During nearly nine years past, since I have been at the head of the Woman's Hospital, the use of hot water for vaginal

injection has been the practice. To the last pint of water a certain amount of chlorate of potassa, chloride of sodium, borax, carbonate of soda, glycerine, carbolic acid, or any other remedy applicable may be added, and if the medicated injection be taken at night, a large proportion of it will be retained until morning. Strong astringent injections to check vaginal leucorrhœa are hurtful. The discharge is but an evidence of engorgement, from which the pelvic vessels are attempting to be relieved, as from a safety-valve. The sooner a leucorrhœa is checked the better, to save the patient's strength, but it can only be done with safety by removing the cause.

With irritability of the vagina it is seldom that any pessary can be used with advantage, and even when this symptom is absent an instrument in any form, as we shall see hereafter, will do harm if the vagina is a capacious one. It will be of advantage, however, as soon as it can be borne, to place a support of cotton, saturated with glycerine, in the vagina every morning before the patient goes out for exercise, and have it removed on her return. The best form is in the shape of a half-grown mushroom; the top should be soft and large enough, when placed in front of the cervix uteri, to lift it slightly from the floor of the pelvis. The stem portion is made by wrapping it with twine, and a part of the string should be left long enough outside of the vagina to remove it.

If we exclude the existence of fibroids and the effects of inflammation, either in the uterus itself or neighborhood, we will find that imperfect involution, from the increased weight and enlargement of the uterus, is the most common cause of prolapse. The enlarged uterus is indicative of a want of tone in the general system, and therefore the most careful constitutional treatment will be needed. After this course has been instituted, and all tenderness in the neighborhood of the uterus has been removed by the hot-water injections, I rely chiefly upon the use of sponge tents to lessen the size of the organ. When it has been determined that sponge tents can be used with safety, I introduce one or more of them, dipped in a solution of glycerine and carbolic acid, as large in diameter as can be borne, but less in length than the canal. It is prudent to place the patient in bed at once and administer afterwards an opiate enema per rectum if needed. The tent should remain for twenty-four hours at least, if not producing much irritation; but after the uterus has become accustomed to the use, I often allow them to remain forty-eight hours for the purpose of obtaining the fullest amount of benefit from the profuse discharge. As soon as the discharge becomes offensive, the vagina should be washed out several times a day with a little carbolic acid added to the tepid water injection. It is well not to pull the tent out directly, but seize it in the grasp of a strong pair of forceps, and remove it without traction by twisting. The fluid on compression escapes into the vagina by this manœuvre, so that the sponge becomes much less in size than the dilated canal. As it is loosened and withdrawn from the cervix, by reversing the twist, all the discharge in the vagina will be again taken up. The advantage gained by removing it in this manner is to lessen pain and diminish the quantity of blood which would be lost by withdrawing it forcibly. I then wash out the uterine canal thoroughly with either hot or tepid water, sponge out the fluid as far as possible, and either inject or swab out the canal with Churchill's strong tincture of iodine, using the precaution to place beforehand a little cotton beneath the cervix, so that the excess does not run into the vagina. This form of iodine, when thus freely applied, constitutes a good antiseptic, and I know of no other means which will cause a more prompt action of the uterus, for in several cases I have noticed the contraction so rapid as to eject the excess of fluid from the os beyond the vaginal outlet. I have used this application for some eight years past, and always treat the uterine canal in the same manner after the removal of fibroids or other growths within the cavity. Those who are familiar with the practice at the Woman's Hospital will bear me out in the statement that the method is a satisfactory one and free from danger, provided the same care is taken beforehand to prepare the patient properly, that the full dilatation may be effected without risk. Churchill's preparation of iodine in these cases, as well as a temporary astringent for arresting uterine hemorrhage, is the best of all styptics, from the fact that it does not coagulate the blood so as to leave clots in the canal. Once in ten days is as often as it is safe to follow out this practice, even when the patient is constantly under observation, for a certain amount of rest is necessary for a few days afterwards, and particularly it must be looked to most carefully that the patient's general health does not suffer from the confinement. In some cases cinchona in combination with the bichloride of mercury acts well as an alterative; in others arsenic does better, or quinine in combination with strychnia as a tonic. I will say in passing, that apart from the effect that quinine may have in improving the general condition, it certainly at times in large doses seems to exercise a direct action on the uterus by increasing its contractile power. I have seen no beneficial result whatever follow the use of any preparation of ergot in these cases.

If the vagina has not been too much dilated in its upper portion, by the descent of the uterus, frequently the organ will decrease now rapidly in size when held in position by a well-fitting instrument. By this means the circulation becomes properly established in the organ. If the vagina is capacious, however, no permanent benefit will follow the use of any form of pessary, although in the beginning great relief is sometimes afforded. The anterior vaginal wall, with the uterus, will crowd to such an extent into the instrument that the circulation becomes interfered with, the hypertrophy will be increased, and at the same time the capacity of the vagina enlarged. If a larger size instrument is substituted, the prolapse of the vaginal wall can be prevented by putting the parts on the stretch, and the uterus held well up in the pelvis, but the same result takes place in the uterus from the obstructed circulation. It must be borne in mind that the cervix uteri in health is seldom more than two and a half inches from the urethra. If an instrument can be worn of not more than three inches in length, its use will frequently be followed by benefit; but should the vagina be so enlarged as to need a greater length, I believe it to be the exception if the vagina regains its normal size unless an operation, to be described hereafter, is resorted to. The best instrument in my experience is the block tin ring, which must be moulded to suit each individual case. The best form is some modification of the double lever, with the portion entering the cul-de-sac, the larger curve of the two, so as to throw the fundus of the uterus somewhat forward, if possible, by elevating the neck. It should be made pear-shaped, with the larger fenestrated portion above, and care must be taken to make a proper depression at the other end to shield the urethra from pressure. The chief difficulty, according to my experience, in shaping an instrument properly, is behind the pubes, from the fact that one side of the symphysis is often wider than the other, with a marked difference in the curve; if this is not looked to, it either causes the in-

strument to rotate in the vagina, or it will cut into the tissues. When the patient lies on the back with the instrument in place, there must be space enough to allow of the finger being passed entirely around its outer circumference, or it will bind at some point when she stands. As soon as it is ascertained that the instrument can be worn with benefit, it is well to have it duplicated in silver gilt, with the diameter of the tubing much increased beyond that of the block-tin. There are two advantages to be gained—a broader resting place for the tissues, and a most important one, in allowing the instrument to be removed on retiring at night without endangering the shape. It is well to remove the instrument frequently when the patient is quiet, so that the circulation may not be impeded, and I often give my patients instructions at night to assume the position on the knees and elbows after taking out the instrument, and to open with the fingers the outlet of the vagina in this posture, so that the uterus may be carried well up into the pelvis by atmospheric pressure. If the patient is all ready for bed, a large portion of the air will be retained if she carefully assumes the horizontal position.

A most frequent cause of prolapse from congestive hypertrophy, and a condition most difficult to relieve, is found as a result of ill-assorted marriages, and with females where means have been resorted to with the object of guarding against conception by preventing the escape of semen into the vagina. I believe for a healthy performance of the function, that the stimulating presence of the semen is needed in the vagina to allow the female organ to be properly relieved of the incident congestion. This habit is to be classed in the same category with self-abuse, and, next to criminal abortion, is the most serious evil of the day with reference to the future welfare of the country. It leads frequently to mutual disgust and divorce, from the often entire absence of sexual pleasure on the part of the female, or at best to great unhappiness at the disappointment in after life, as the want of children begins to be appreciated when it has become now desirable or convenient to have them. The ovaries are often exceedingly tender on pressure, and one or both prolapsed with the uterus. The organ itself is large, and has a soft, doughy feeling. Often from the uterine canal there is a profuse follicular discharge, and I have no doubt that some change takes place in the fallopian tubes, by which their canals become eventually obstructed or occluded. Menstruation, as a rule, is profuse and painful at first, although from the same cause, engorgement, it may be even scanty. My opinion is that the organ gradually undergoes fatty degeneration, and that atrophy is to be anticipated earlier in life, with almost entire cessation of the menstrual flow long before the change of life becomes fully established. We also observe, in some degree, a similar condition brought about by various other means instituted for the same purpose—to prevent conception—illustrating how Nature exacts, with unrelenting justice, a penalty for every violation of her laws. The physician's skill will be taxed to the utmost in any case of long standing, to bring the nervous and constitutional condition to a healthy standard. With such tonics as may be indicated, I have used, for a length of time, as large doses of iodide of potassium as could be borne without deranging the stomach. It is well frequently to paint the whole vagina with the strong tincture of iodine, and I have often been surprised at the great sense of relief experienced from this application. Care must, however, be taken, in consequence of the great pain produced, that no portion of iodine is allowed to come in contact with the tissues of the vaginal outlet. Much benefit results from the frequent application of carbolic acid to the uterine canal, passed to the fundus. I have also used freely iodine for the same purpose, but its action is not so marked. Small and frequent blisters should be applied over the region of the ovaries when much pain is experienced. As the patient has rarely any strength to lose by keeping up a discharge, the blister should be at once dressed with a little loose cotton, which, as it adheres, is to be undisturbed until the surface beneath has become healed, when it separates. Sponge salt-baths in the morning, and a hip-bath in the middle of the day, or before retiring at night, are often beneficial if the temperature is so regulated that a proper reaction takes place; where they do not have a marked benefit, however, at the beginning, and if the ovarian pain is in the least degree aggravated, positive harm will result from continuing their use. As soon as the patient's condition will warrant the move, an entire change of climate and scene is most beneficial.

When acute metritis exists, or cellulitis in the neighborhood of the uterus, the organ is found low in the pelvis, but it soon becomes fixed in position. To enter into a treatment of this condition is foreign to my purpose; I will merely throw out the hint in regard to the frequent and prolonged use of hot water injections, administered at as high a temperature as can be borne.

(To be continued.)

A LECTURE ON
THE DISEASES OF THE AURICLE.

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A FINELY formed auricle is justly esteemed one of the marks of personal beauty. The celebrated physiognomist, Lavater, also attached considerable importance to this part in determining character. A French author, Dr. Amédée Joux, quoted by von Tröltsch, goes much farther than Lavater in his estimation of the significance of the auricle; and besides the part which it plays in indicating human character, he claims that, more than any other organ of the body, does it descend with its particular form from father to child, and that by the shape of the auricle we may be assisted in determining the legitimacy of children, and the conjugal fidelity of a mother. He says, "*Montre-moi ton oreille, je te dirai qui tu es, où tu viens, et où tu vas*," or as we should say in English, "Let me see your ear, and I will tell you who you are, where you came from, and where you are going."

I am inclined to think that this view of the importance of the auricle is Gallic rather than truly physiological. Recent authorities, such as *Gruber* of Vienna, believe that the grace and beauty of the auricle have little influence upon the functions, whatever may be the physiognomic or other significance of the part. It makes very little difference as regards the hearing power, however much it may affect personal beauty, whether the auricle lies exactly at a proper and graceful angle on the head, or whether it be closely adherent, and thus simply form an ugly appendage; and yet the auricle has functions, although, like the muscles which move it, these functions in man are comparatively unimportant and rudimentary. We all know, however, that there is some importance attached to this part by persons with impaired hearing, for we must have seen such persons place the hand behind the auricle when listening intently in order to facilitate the conduction of sound into the auditory canal. Voltolini* considers

* Monats-schrift für Ohrenheilkunde. Jahrgang I. No. 1.

the auricle to be a reflector, condenser, and conductor of the waves of sound. As a reflector, the fossa of the concha throws the sound-waves against the tragus, whence they pass into the auditory canal. This author is inclined to the belief that when the auricle is small the concha is deeper in order to compensate for the loss.

The auricle is a condenser of sound, just as is every other firm and elastic body.

As a conductor of sound, however, according to Voltolini, the auricle has its chief function. "If it were merely a reflector and condenser, it would have done its work better if formed of bone. It is to be considered as an external membrana tympani. This outer membrane by reflex action is placed in different degrees of tension, just as is the true membrana tympani by the tensor tympani muscle. This may be illustrated by observing the operation of syringing the ear. At the entrance of each stream of water, the auricle moves, and at times this motion is sufficient to cause a backward current of the water from the ear.

"Again, many persons with impaired hearing can hear the watch, if it touch but the outermost tip of the auricle, while it cannot be heard if held but a line removed from the part.

"To sum up, the auricle may be considered as the outer orifice of a hearing or speaking-tube, of which the external auditory canal is the tube proper—and since the sound receiver is so large in proportion to the calibre and length of the tube we may see what nonsense it is to recommend the so-called invisible ear-trumpets, which are simply short aural specula."

Having thus considered the functions of the auricle, we may pass on to the diseases to which it is liable. A full consideration of these affections belongs rather to general than to special surgery, inasmuch as diseases of the auricle rarely cause marked impairment of the hearing; and yet, for the sake of completeness in this course, I may call your attention to the principal symptoms, with the general pathology and treatment of malformations and acquired affections of this part.

I think we may conveniently classify them as follows:

I. Malformations.
II. Tumors.
III. Malignant Disease.
IV. Injuries.
V. Eczema.

Many of the so-called malformations are the simple results of ill treatment of the auricle. Many women cover their ears so tightly with their hair, cap, and hood, as you all must have observed among the patients at the ear cliniques, as finally by the excessive pressure to obliterate the natural ridges and depressions which go to make up a finely shaped ear. Boys often get into the bad habit of pressing their caps down upon their ears. They thus cause them to lap over, and give them the unsightly appearance known as "dog ears."

All the attention which we as medical advisers may give to such acquired malformations, is to warn those who thus improperly treat this appendage of the risk they are running of becoming deformed.

There is a class of malformations which has the same pathological interest with other forms of arrested development, such as spina bifida, coloboma iridis, etc., but unfortunately they are also cases for which our art can do nothing. I refer to those cases in which the auricle is congenitally absent, or where it exists only in a rudimentary form. In such instances the middle and internal ear are usually also in a deficient condition, and the auditory canal closed. Cases have been seen, however, where the auricle was absent, while the other parts of the ear were in a normal condition, and in which there was a good hearing power. The description of a case recently reported by Dr. Knapp of this city, will serve as a description for the whole class:*

"In a healthy child of three months, the left auricle consisted of a slightly tortuous ridge, two lines in height and three quarters of an inch in length. It felt tough to the touch, like a healthy auricle, being undoubtedly composed of cartilage and skin. Its shape represented the rudiments of the helix and lobule; the other parts of the auricle were not visible. Immediately in front of the middle of the rudimentary auricle, there was a small round depression, indicating the situation of the external meatus." An incision through this point showed that the auditory canal was filled up by bone, or rather that there was no canal.

The experience of the profession is against the attempt to open a canal to an organ which will probably be found so imperfect that sound cannot be perceived by it. By means of the tuning fork we may always determine in the case of any persons of sufficient age whether the central apparatus be or be not unimpaired. If the canal be closed, while the labyrinth is intact, the vibrations of a tuning fork whose handle is placed on the teeth or forehead will be heard more distinctly in the affected than in the sound ear. The reflection of the sound waves is diminished by the stoppage of the auditory passage, just as in cases of inspissated cerumen and thickening of the mucous membrane of the cavity of the tympanum and the Eustachian tube.

The tumors found in the auricle may be divided into the following classes:—

I. Fibro-cartilaginous.
II. Sebaceous.
III. Vascular.

The first-named form is a simple hypertrophy of the normal structure of the auricle.

According to Billroth, these tumors consist chiefly of fusiform cells and connective tissue, and are nothing more than hypertrophy of the cicatrix, such as occurs on other parts of the body after injuries.

They seem to occur much more frequently among the African than the Caucasian race. I have removed several of these growths from the auricles of negro women, while I have but rarely seen them among whites. I am also informed that they occur very frequently among the Africans of the East and West Indies, where they grow to an enormous size.

The etiology of these growths is very simple, if my own experience may be trusted on this point. They occur as the result of the irritation of the lobes produced by the custom, truly barbarous, of piercing the ears in order that ear-rings may be worn. They are much more apt to be found in the lower classes, because these use brass ear-rings much more commonly than wealthier persons, although the growths may occur even if gold ear-rings are used. They sometimes reach an enormous size, and become a very serious deformity. If these ornaments are considered indispensable, as no doubt they are, ladies should wear them by causing them to be clasped around the auricle by means of a suitable contrivance now sold by the jewellers and very much used.

One of the older authors, Frank, gives illustrations of the proper instruments with which to pierce the ears, with a detailed account of the operation; but the efforts of the medical adviser should be towards the prevention of the barbarous custom rather than increasing the facilities for retaining it.

* Transactions of the American Otological Society. Third Year.

Fibro-cartilaginous tumors should be removed if they attain such a size as to be at all troublesome. The removal is readily effected by a V-shaped incision made with strong scissors. The edges of the wound are then brought together by sutures. The resulting deformity is usually very slight, and is much less than that from the tumor.

Sebaceous tumors should be removed by enucleation. Erectile tumors occurring on the auricle are perhaps best treated by means of the galvano-caustic apparatus, of which more will be said when we come to the subject of aural polypi.

The peculiar effusion of blood which quite often occurs in the auricle and especially among the insane, and which is known as othætoma, hæmatoma auris, or vascular tumor of the auricle, has caused quite an amount of discussion among scientific observers. Virchow * and Hun † are the authors who seem to me to have given us the clearest and best accounts of this interesting affection, and I shall avail myself of their labors in what I am about to say, together with some experience of my own on this subject.

The so-called othætomata may be divided into those of idiopathic and traumatic origin. The idiopathic form occurs chiefly, though not exclusively, among the insane. I have seen two cases occurring in people of sound mind, which corresponded exactly with the descriptions of those occurring in the insane as given by Dr. Hun, whose observations seem to have been confined to this class. My friend Dr. E. G. Loring has also seen one idiopathic case in a sane person. The symptoms of the idiopathic form of the affection are as follows: Before the tumor appears we find the ear or ears, as the case may be, red and swollen, and the face and eyes give evidence of a strong determination of blood; occasionally, however, there is no redness of the skin, and there is merely some œdema of the auricle; among the insane there is no manifestation of general ill health. In a few hours, or it may be days, an effusion of blood takes place. The tumor occupies the concha in the main, but it extends over the auricle so as to obliterate its ridges and cause the usually beautiful part to appear like a roundish reddened tumor, varying in size from a bean to a hen's egg. This tumor is evidently of an inflammatory nature, being hot and painful. The swelling is usually quite firm, but a careful examination will detect fluctuation.

The vascular tumor of the auricle, judging from Dr. Hun's statistics, is much more common among men than women. He reports twenty-four cases, of which twenty-three occurred in males. The form of insanity was general paresis in eight cases, melancholia in six, acute mania in four, chronic mania in four, and dementia in two. These statements accord with the views of other authors, so that we may conclude that hæmatoma auris, when occurring in the insane, is a symptom which is highly unfavorable, and which points to an incurable form of disease of the brain.

The tumor either ruptures spontaneously, sometimes with such violence as to spirt the blood to a distance of several feet, or is gradually absorbed, unless interfered with. Spontaneous rupture is more common than absorption.

Dr. Hun's observations show that the traumatic and idiopathic othætomata differ entirely; for in one case which he details, an insane person, already suffering from hæmatoma of one auricle, received a blow from a broom-handle on the other, which produced swelling and ecchymosis, but no hæmatoma. We must, therefore, I think, strictly distinguish the idiopathic from the traumatic form.

The etiology of hæmatoma is deemed by Hun to be twofold, viz., cerebral congestion and centripetal irritation of the system by the emotions; and he considers either of these causes sufficient to produce the effusion. In general pareses there is, according to all authors, a tendency to repeated congestions of the head, and it is supposed that the bloodvessels of the ears become so dilated as to favor the effusion. The second factor in producing hæmatoma auris, centripetal irritation of the sympathetic from strong emotions, is especially active among the insane, because their emotions are not under the control of the will.

Virchow has made the pathology of othætomata very plain, both by his words and the excellent illustrations which he furnishes in his great treatise on tumors. The older authors described the affection as erysipelas of the auricle occurring in the insane. It was supposed that in the hyperæmia and general change in the system a hemorrhage occurred, which caused a separation of the perichondrium from the cartilage; but in true othætomata, pieces of the cartilage become attached to the perichondrium.

According to the Berlin pathologist, the morbid process seems to be primarily a softening or deliquescing one, induced by general disturbances of nutrition, or *possibly*—although this class of cases seems to belong to itself—by local injuries of the cartilage. The tumor disappears either by gradual absorption, spontaneous rupture, or by the puncture of the surgeon. Coagula often form, which make a delicate coating over the separated portions, and these afterwards serve as means of adhesion. When suppuration does not take place, great deformity is apt to occur from the thickening and retraction of the soft parts, especially of the perichondrium.

The authorities differ as to the proper method of treating idiopathic othætomata. Dr. Hun says that puncturing or laying open the sac does more harm than good. He believes that the least amount of deformity is obtained when the effusion is gradually absorbed. Dr. Gray, of the Utica Insane Asylum, proposes to ligate the posterior auricular artery. Gruber advises the evacuation of the fluid and the coagula, and the use of a compressive bandage. My own experience inclines me to Gruber's method of treatment.

I think, as I have just said, that we must classify the vascular tumors of the auricle caused by violence by themselves, as being in their nature perfectly distinct from those occurring idiopathically. I will now speak of these.

Gudden, a German writer and physician for the insane, quoted by Virchow, has shown that the auricles of ancient statues are very frequently ornamented by tumors resembling the vascular effusions seen among the insane. In the gallery at Munich the head of Hercules has such ears. These misshapen auricles are the typical marks of the ancient boxers or pugilists. Such fighters wrapped their hands in leather, and, thus armed, struck the ears of their antagonists; consequently in the figures of Hercules, Pollux, and other classical fighters a deformed auricle is a regular appearance. Other historical personages, the Trojan Hector for example, are represented as having othætomata.

To conclude from these observations that the othætomata are *always* the result of traumatic influences, that they are more frequent among the insane because they are very apt to injure themselves or be injured by themselves, seems to me to be manifestly incorrect, judging both from Dr. Hun's observations and from the fact that these tumors are uncommon. Even the

* Krankhaften Geschwülste.—Bd. 1. S. 125 et seq.
† *American Journal of Insanity*, vol. 27, No. 1.

English writers, living in the land pre-eminent for pugilists, do not speak of their frequency. Wilde describes and gives an illustration of one case, however, which seems to have been a hæmatoma, but was not recognized as such by the author. It was idiopathic in origin.

Toynbee * describes these cases under the head of cysts, and seems inclined to ascribe to them a traumatic origin, and he states that it is the opinion of Dr. Thurnam, physician to one of the County Insane Asylums of England, that they are less frequent than formerly on account of the fact that violence is not so much employed in the management of the insane. Dr. Thurnam evacuated the contents of the tumors and used setons, and thus claims to have prevented the deformity to some extent. Toynbee mentions but one case in a boxer which he has seen, but his description is not detailed enough to allow us to judge as to whether it was identical with those observed in the insane.

From all that has been written and from my own experience I think we may safely affirm—

First. That there are two distinct varieties of othæmatomata:

1. Idiopathic.
2. Traumatic.

Second. That the idiopathic is more common among the insane than among others, but that identically the same affection does occur among the same.

Third. The traumatic form differs from the idiopathic in being a simple extravasation of blood from vessels ruptured by violence. In such cases the deformity resulting from the spontaneous effusions does not occur, unless among professional pugilists where the violence is frequently repeated, and the auricle from repeated hemorrhages assumes a shape like that resulting from a true othæmatoma.

Malignant Disease.—The auricle is sometimes, although not frequently, the seat of malignant disease. I have observed one case of epithelioma of this part, in which the whole auricle was destroyed, and the disease had invaded the auditory canal. I lost sight of the patient after some weeks, and I can give no account of the subsequent course of the disease, which was unchecked by the treatment adopted—the application of fuming nitric acid. Dr. J. Orne Green, of Boston,† also reports a case, and quotes one from Velpeau.‡

Epithelioma of the auricle usually begins as a small papule which finally develops into an open ulcer. This spreads very rapidly, involving finally the auditory canal and deeper parts unless arrested.

Excision or amputation of the parts is the only proper treatment. When the auricle alone is involved this is very easily accomplished. In the healing process care should be taken, as suggested by Dr. Green, to prevent the closure of the meatus by the cicatrix, a result which followed in the case reported by him, in consequence of the refusal of the patient to remain under observation until the wound was healed.

Vascular neoplasia.—Angioma, a form of vascular tumor which, according to Gruber,§ at first sight resembles an othæmatoma, may occur on the auricle. The treatment that has been attempted in angioma is, in general terms, cauterization with various substances, or inoculation with vaccine lymph, the application of tartar emetic ointment, or subcutaneous injection of dilute tincture of the sesquichloride of iron; but the simplest and only effectual remedy is the amputation of the affected portion.

* P. 53, American Edition.
† Gazette des Hôpitaux, 1864.
‡ Transactions American Otological Society, 3d year, p. 63.
§ Lehr-Buch, p. 409.

Sarcoma.—Sarcomatous tumors may occur on the auricle as well as in the auditory canal, where they arise from the cartilaginous portion. They grow very slowly, but they may extend to the auditory canal, causing external otitis, to the middle ear, and even to the labyrinth and meninges of the brain. Early removal is the only safe means of treatment, and even then the growth may return.

Eczema.—Eczema of the auricle is not one of the most frequent afflictions of the ear, as shown by the statistics of eye and ear hospitals and writers on otology, but very many cases never come under the attention of special observers, and are, consequently, not found in their statistics. It will be more convenient to consider this affliction as occurring in the external auditory canal as well as on the auricle, and I shall, therefore, speak of it in that manner.

Eczema of the ear seems to occur more frequently among females than males, but it does occur, of course, in either sex. The symptoms are the same as those of eczema in other parts of the body, with some peculiar to the ear. They are redness, swelling, and the formation of vesicles which become pustular, and which finally cover the whole region with unsightly crusts, from which a discharge occurs. The auricle becomes a misshapen mass, while the swelling and incrustation of the integument lining the auditory passage and membrani tympani impair the hearing to a serious extent. Fulness and noise in the ears are then added to the patient's other symptoms, and the condition is unpleasant in the highest degree. The disease, when left to itself, is apt to have a very chronic course, and yet it is very amenable to proper treatment. The causes of eczema are not very clear. I have usually observed it in persons of weak constitutions, and not among the strong and vigorous. It rarely occurs upon the auricle alone, but it is usually found in conjunction with the same disease on other parts of the body, most frequently in conjunction with eczema of the face and head, although it sometimes occurs on the auricle and in the meatus alone.*

According to *Ausspitz*, formerly an assistant to Hebra, the great dermatologist of Vienna, eczema of the ear differs from the same disease as it appears in other parts of the body, in occurring with a greater amount of swelling and secretion of a serous fluid than is usual, together with the more frequent appearance of fissures in the tissue.

Treatment.—The treatment of eczema is simple, and I have usually found the results very good. The advice of Ausspitz, to do as little as possible in the acute form, is excellent. The auricle should be kept from the air. This may be accomplished by the use of oils, powders, or even by a plaster-of-Paris bandage. A good application is the formula of Ausspitz.

℞ Flor. Zinci..... 3 ij.
Pulv. Alum, }
Amyli Pulv., } āā..... ℥ j.
M. Ft. pulv.

This powder is dusted over the affected portion with a camel's-hair brush. If the auricle be excoriated and sensitive, astringent solutions of sulphate of zinc may be used.

At the same time with this local treatment, as in all other diseases, the physician should carefully consider the general state of the patient, and in this a cause for the eczema may often be found, which being removed by appropriate management will prevent a relapse of the affection.

* Archiv für Ohrenheilkunde, Bd. I.

Eczema of the auricle and auditory canal is not often brought to the notice of the surgeon until it has become chronic. Its treatment then may require the greatest patience and care. The treatment which I have found usually successful, is the following:—The auricle is carefully poulticed with flax-seed meal until all the crusts can be removed, and is then anointed with an ointment of the sulphate of iron and simple cerate, in the proportions of from one to two grains of the former to a drachm of the latter. This ointment is applied as often as may be necessary to keep the part constantly anointed until the vesicles have ceased to form.

The local treatment of the auditory canal is often unsuccessful from the want of the personal attention of the physician. No one who is unable to examine the external opening of the ear down to the membrana tympani, can tell when it is or is not clean. Without a thorough removal of the material thrown off in an eczema, there can be no cure. An eczematuus auricle may perhaps recover spontaneously, an eczematous auditory canal, probably, never. The material thrown off from the inflamed integument collects in the narrow passage, and by mechanical irritation increases the swelling, and produces the most troublesome symptoms of deafness. The auditory canal should be therefore carefully cleansed every day with the syringe and angular forceps or cotton holder under a good illumination with the otoscope, and then an appropriate *liquid* application be made. A liquid preparation is to be preferred to an unctuous one, for the simple reason that an ointment will again block up the passage and thus prevent the patient's securing the full benefit to his hearing power which the removal of the epidermis, crusts, and pus has produced. As I shall again have occasion to say, in speaking of the affections of the auditory canal, you will fail to cure many a case of disease of the integument lining this part, if you do not carry out your own advice; never confide it to the hands of the parents or attendants of the patient, for they will be incompetent assistants.

The warm-water douche is very valuable in the treatment of chronic eczema of the canal. It allays itching sensations, and is usually very grateful to the patient. The use of the douche may be entrusted to the patient himself. It is well to use it very often in the early periods of treatment, say once an hour. The warm water is a direct antiphlogistic; I have seen its use alone cure most obstinate cases of inflammation of the canal.

The only specific remedy for internal use in chronic eczema of the auricle, as well as that of the same disease in other parts of the body, is arsenic. In very chronic cases I usually give Fowler's solution in connection with the local treatment, and it is usually of great avail.

I am aware of various other modes of treating eczema, and of the almost innumerable applications which are recommended; but I feel confident that that which I have sketched will serve its purpose so well, as, modified by your own individual judgment in practice, to fulfil all reasonable requirements.

Calcareous formations are often found in the auricle, in persons of a gouty habit, as in other parts of the body. They require no especial treatment, being mere symptoms of the general disease.

The Preservation of Snow in China.—Rev. William Speer, D.D. (*China and the United States*), says it is amusing to witness the eagerness of the Chinese when once in many years a slight snow falls in the winter, to gather it into bottles, in which they suppose its precious virtues will be preserved after it melts, and be an efficacious remedy for fevers.

Reports of Hospitals.

CHARITY HOSPITAL, BLACKWELL'S ISLAND, N. Y.

A SUCCESSFUL CASE OF TRANSPLANTATION.

By Rafael Morales, M.D., Resident Surgeon.

Bridget Connor, age forty-three, a native of Ireland, single, domestic, was admitted to Charity Hospital, Ward 10, September 22, 1870. Patient has always been healthy, and gives no history of any specific trouble; states that seven years ago, she noticed a redness of the skin over the internal malleolus of left leg, extending completely around and to a point halfway between the ankle and knee-joint; it was accompanied by considerable pain and swelling, but no varicose veins could be detected at the time. This condition of things existed for about two years, when a small ulcer formed over the internal malleolus and from this point extended gradually in every direction. At this time was treated by a physician in the country, but with no beneficial result. The ulcer continued to increase in size for six months, and she presented herself for treatment with an abraded surface about the size of the present one. She remained here for a year and a half, during which time various methods of treatment were pursued. Among others, the ulcer was strapped, which reduced it to the size of two inches in diameter. At that time she went out and placed herself under the care of another physician, but at the expiration of ten months she returned for the second time, with the ulcer as large as at the time of her first admission. The former treatment was pursued, with the effect of reducing it to the size of a silver dollar. In about eight months she went out again, and three months after (Sept. 22, 1870), she applied here for the third time, presenting an ulcer irregular in shape, extending from the internal malleolus upwards for about ten inches; also from internal border of tibia, about four inches in width at the upper part, and about five or six at the lower, involving part of the external surface of leg; very irritable and painful. Various remedies were used, but none gave good resul s. January 4, 1871, I took charge of the case, and ordered it to be poulticed for two weeks with the good effect of cleaning it and relieving it from all pain and discomfort. Now being in a healthy condition, I transplanted eight pieces of skin, each about the size of a pin-head, from the inside of the left thigh by a method not yet alluded to, and first proposed by Prof. Frank H. Hamilton, which is simply by laying the small fragments on the ulcer without scraping, rubbing, or incising the granulations, the fragments being retained by adhesive-plaster, which had previously been greased at the points of contact with the new skin. In about eight days the dressings were removed, and the pieces found adherent and about the size of the thumb nail. Ten more pieces were again transplanted by the same method with the like success in about the same time. Since then I have transplanted several other pieces on different occasions. At present March 10 (only a period of forty-eight days) the pieces are thoroughly united, and the ulcer completely healed.

Purification of Water.—Water may be purified by the addition of chloride of iron, in the proportion of half a grain to a quart of water. The impurities are in this manner, to a great extent, separated, and by the further addition of soda 1½ grain to a quart, the iron is precipitated.—*Boston Journal of Chemistry.*

Progress of Medical Science.

Climatology of Bright's Disease.—Gouverneur M. Smith, M.D., New York (*Trans. New York Academy of Medicine*), does not doubt that climate is an element in the causation of Bright's disease—referring to the form of the malady represented by granular degeneration. The inhabitants of the poles and of the tropics are comparatively exempt from the disease, owing to the fact that the climates to which they are exposed are either uniformly cold or equably warm. The annual mean temperature of the city of New York and vicinity is 51° F., and therefore it is a location especially favoring the development of Bright's disease. It is consequently not surprising that here the malady is so frequently encountered. During the year 1867 the deaths in New York city numbered 23,441, of which number 425 were from Bright's disease. Rochester and Providence, with climates cooler than that of New York, have a considerably less mortality from Bright's disease. This comparative immunity may be partially attributed to the fact that these places are nearest the outskirts of the Brightian tract, and partially to the reason that intemperance is less prevalent in those cities than in this locality. Dr. Smith believes that the liability to this disease is diminished where the vicissitudes of the weather are less abrupt than in this locality; in other words, that the climatic element of causation decreases both in more northern and more southern latitudes. The southern part of our Union seems to present a place of refuge to one threatened with Bright's disease, or to one who has recovered from its more serious symptoms, and appears to offer a residence in which he is less exposed to excite irritation in parts of the kidneys which may be unaffected, or which may be but partially diseased. In following the isothermal line of 60° F., we find it commencing near the northern part of North Carolina, running through Chapel Hill and Raleigh, thence along the northern part of Georgia, Alabama, Mississippi, Arkansas, and Texas; thence crossing the continent and running northward on the Pacific coast, north of Sacramento, to about the 40° of latitude. In conclusion, he says:—"It behooves all, therefore, who reside in this metropolis during the winter months, to maintain a constantly uniform and normal temperature; an object which can only be attained by suitable diet, warm clothing, and a due attention to the warming of apartments."

Tracheotomy in Croup.—Dr. Guersant (*Medical News and Library*) gives the subjoined indications necessitating the operation of tracheotomy. The first indication is, that the suffocation and asphyxia from which the patient suffers, shall be permanent and without intermission. The second indication is, that the disease shall be local and not general. In the former state the patient is in the most favorable condition; in the latter there is but little chance of success. In fact, if false membranes exist in the nose or behind the ears, or, as is frequently the case, there is ulceration even in the vulva; if there are many enlarged glands under the jaw, and if the urine is albuminous, it is necessary for the operator to know that he has very little or no chance of success. The third indication is, that the patient shall be at least two years old. The number of successful operations performed prior to that period has been very small, and the cases are only exceptional in which tracheotomy has succeeded in children of six months, a year, and eighteen months; and yet the successful result achieved by M. Scouttetten on a child of six months, and that of M. Maslieurat Lagémar, induce him not always to decline operating on children under a year old.

Hypodermic Injections of Strychnia.—Dr. Reuben A. Vance, of New York (*Journal of Psychological Medicine*), refers to thirteen cases of paralysis, which, with the exception of three cases, were either greatly improved or completely cured by hypodermic injections of strychnia. Its speedy action and greater efficacy, the power it possesses of unmasking organic disease of the cord, in doubtful cases, makes it a valuable diagnostic aid in certain cases of paraplegia. Too great care cannot be exercised upon the solution intended for subcutaneous injection. The solution made with dilute phosphoric acid is better than with sulphuric acid. With the former a smaller quantity is required to dissolve the strychnia, and the solution, upon standing, does not become filled with flocculi, as in the latter case. No stated quantity will serve as a dose in all instances, and in this respect each case will require separate study. For an adult it is perfectly safe to administer as much as the one-tenth of a grain; but so large a dose is rarely necessary. The safest plan is to commence with a minimum quantity—say, the sixtieth of a grain—and increase it gradually as the patient becomes accustomed to the effects of the drug and the necessities of the case require. This method of treatment is far from being applicable to all forms of paralysis. Its employment in cases of organic disease of the spinal cord, such as meningitis, myelitis, congestion of the cord, or tumors, is radically wrong, and can result in nothing but injury to the patient.

Ready Method of Cranial Comparison.—It occurred to Dr. T. W. Fisher, of Boston (*Boston Medical and Surgical Journal*), not long since, to utilize the outline patterns taken by hatters with the *formateur*, and to obtain from them a standard of comparison for certain dimensions of the head. The following results are offered:—Out of one hundred miniature outlines taken by the instrument by Klous & Co., the extremes of size, by length, were $8\frac{5}{16}$ and $6\frac{3}{16}$ inches; by breadth, $6\frac{1}{16}$ and $5\frac{3}{16}$ inches. The actual area of an average head is 36 inches. The difference in shape gives rise to four principal forms: the rectangular, the ellipsoidal, the round, and the ovoid. Of these, the latter is by far the more common type. The left side preponderates slightly in the averages, and the most marked cases of asymmetry are of the left side. Eighty-five male adult heads were carefully measured with the *formateur*, at the Boston Hospital for the Insane. It was evident that the average insane head is considerably smaller in all the dimensions than the sane. There were, in fact, four heads among the eighty-five insane ones too narrow to be accurately measured by the instrument. Cases of congenital deficiency, in which the history should be wanting or withheld, might perhaps by this means be detected.

Case of a Foreign Body Remaining Four Years in the Lung.—Dr. G. H. W. Herrick (*Boston Medical and Surgical Journal*) relates the case of a boy, fourteen months old, who swallowed a shawl-pin two inches long, with a head as large as a small pea, and four years afterwards was seized with a severe attack of coughing, and spat out the pin. It was very brittle, being easily broken; the head was still united to about two-thirds of the stem. Some small pieces came up with it at the same time, making up the full length of the pin. The spasmodic cough ceased.

Functional Nervous Disorders.—Wm. R. Fisher, M.D., New York, in a monograph on "The Application of Localized Movements to the Treatment of Certain

Functional Disorders," states that persons who are bedridden from functional disorders are not usually weak-minded women, naturally predisposed to an ascendency of the emotions; but, on the contrary, the intelligent, the cultivated, and those who are accustomed to devote much of their time to works of benevolence and charity, with too little regard for self-interest in matters of comfort, occupation, and health, make up in large proportion the bulk of sufferers from this variety of nervous disturbance. Excessive mental or physical labor in connection with our charitable associations, or in individual efforts to contribute to the slender means of a struggling family, are prolific agents in producing this condition among our women; while the influence in the same direction of sudden shocks upon a person in feeble health, as by physical injury, unexpected reverses in fortune, domestic affliction, and the like, may readily be appreciated. An acute disease may in its subsidence leave the patient in a state of utter helplessness, from which recovery does not take place because the mind remains unconscious of returning strength. It may be associated with a chronic disease of some particular organ, or the determining cause may act so insidiously as to elude the notice of the patient and physician. But it is probable that the majority of cases which arise between the ages of twenty-five and thirty-five have their origin in the peculiar relation which exists between the female organization and the proper gratification of the maternal instinct. The state of marriage is well-nigh an absolute essential to the perfect health and happiness of a woman, since by entering it at a suitable age, not only is the sexual appetite turned from channels of immoral thought and practice to the performance of its physiological function, but occupation and an aim in life are supplied for mind and body, as by nature for the maintenance of the necessary equilibrium between her vital forces.

The Phenomena of Death by Drowning and Cold —Dr. Richardson has shown, amongst other experiments, that fish which would be presumed to be dead from what he called "glacial death," were easily recoverable. His view as to the suddenness of the collapse of the body in water at freezing-point is, that the exhaustion follows on peripheral nervous shock, due to the cold, and quick succeeding exhaustion of the nervous centres. Thus the temperature of the brain was reduced to 56° F., in an animal drowned in freezing water, while the temperature of the chest and abdomen was at 76° F. Death from drowning under ice is, Dr. Richardson states, one of the most rapid of deaths, and is completed, he believes, with so quick an extinction of consciousness as to be actually painless. The heart retains its power of action, the blood remains fluid, and the muscles keep up their irritability for a long time after apparent dissolution; and so favorable are all the conditions for renewal of living action, even for two hours, that a considerable advance in the practice of resuscitation must follow upon further careful and laborious experimental research.—*Lancet.*

Unity of Syphilitic Poison.—Mr. Morgan made a communication to the Surgical Society of Ireland, in which he advanced arguments which went to prove the unity of the syphilitic poison, as opposed to the generally received theory of its *duality*. In his experience of cases at the Westmoreland Lock Hospital, Dublin, such a thing as a *hard* chancre is scarcely known, whereas this form of sore is by no means so rare among the men who are infected by the same class of women as is received into that Hospital. Mr. Morgan also mentioned several individual instances in which he was enabled to trace the communication of the disease, showing itself by the *hard* chancre in the *male*, from that manifesting itself by the *soft* chancre the *female*. The author's views were also borne out by the result of his investigations as to the effects of the inoculation of syphilitic discharge upon patients previously diseased.—*British Med. Journal.*

Iodide of Ammonium Preferred to Iodide of Potassium.—Dr. J. W. Curran (*Medical Press and Circular*) is confirmed in the belief that iodide of ammonium is more potent in therapeutics than iodide of potassium. He gives it the preference in the treatment of glandular affections, and extols it highly in cutaneous erysipelas. His method of applying it in erysipelas is in the form of ointment spread on lint, as well as internally. The ointment is composed of 30 grains of the iodide to an ounce of simple cerate. He says it rapidly promotes absorption of the effusion underneath the skin, and has been uniformly successful in 16 cases. He also gives internally four grains three times a day, with infusion of cinchona. "I am proud to say," he continues, "that the rash has never spread beyond the anointed lint."

The Size of the Drop of Different Fluids.—Dr. Cotting recently presented to the *Obstetrical Society of Boston*, the subjoined results of experiments made for him by a reliable apothecary, the object being to ascertain the size of the drop of different fluids; the experiment consisted simply in letting thirty drops fall into a minim glass, and measuring the number of minims.

		When dropped from a—		
		Shop-bottle.	1 oz. vial.	4 oz. vial.
30 gtt. tinct. opii	=	15 min.	20 min.	15 min.
(2d trial)	=	15 "	15 "	15 "
30 gtt. tr. aconit. rad.	=	15 "	17 "	17 "
(2d trial)	=	14 "	12 "	15 "
30 gtt. vin. colch. rad.	=	20 "	20 "	20 "
(2d trial)	=	20 "	20 "	17 "
30 gtt. filt. rain water	=	30 "	30 "	30 "

—*Boston Med. and Surg. Journal.*

Hysterical Arthralgia.—Sir Benjamin Brodie found that a fifth part of all the women who consulted him on account of pains in the joints were suffering from what he considered to be hysterical arthralgia.

Maggots in the Ear.—Dr. C. Robertson, of Albany, N. Y. (*Buffalo Med. and Surg. Journal*), at the December meeting of the Albany County Medical Society, spoke of the case of a lady, who, while on a picnic, heard a fly buzzing about her ears, but did not think of the circumstance again until after the lapse of a few days, when she felt some irritation in one ear. When consulted, Dr. R—— removed some parasites with aural forceps, which had penetrated beyond the membrana tympani. Sweet oil was poured into the ear, which was retained for awhile; shortly, one came to the surface, apparently searching for breath; this gave relief for ten minutes. More were observed, which were extracted with the forceps. The after-treatment consisted in syringing the ear with warm water. The opening in the tympanum closed, and her hearing became perfect.

A Case of Elephantiasis Arabum.—Probably as perfect a specimen of elephantiasis as is to be found in any country, is illustrated in the *Buffalo Medical and Surgical Journal*, and described by Dr. H. D. Ingraham, of Kennedy, N. Y. The patient, male, born in this State in 1838, noticed in 1858 an enlargement of the left leg, which has continued to increase ever since,

with the exception of three or four weeks in the fall of 1859, when Prof. Frank H. Hamilton succeeded in the reduction of the enlarged limb to about its normal size. The skin of the foot closely resembles that of the elephant. The limb now measures at its principal points of variation, fifty-seven, twenty-nine, thirty-six, and thirty inches; the measurement of the instep is twenty-two inches; that of the foot sixteen. The nates are of the natural size, as also the right testicle, while the scrotum is fourteen inches in circumference. The patient is the eldest of seven children. His weight was formerly from 135 to 140 pounds, while he now weighs from 280 to 300 pounds.

Torsion in Hip-Joint Amputation.—Dr. Wm. MacCormac, Surg. to the General Hospital, Belfast (*British Med. Journal*), refers to the first hip-joint amputation made by him at Balan, in the late Franco-Prussian war, where the patient survived the operation only four days. The femoral artery was twisted, and no hemorrhage occurred. He supposes this is the largest arterial trunk to which torsion has ever been applied.

Sulphur in Croup.—Dr. Lanini, in *Lo Sperimentale*, of Florence, of December, 1870, writes that he has treated membranous croup successfully with powdered sulphur in doses of a scruple every two hours. He reports a case occurring in a girl of eight years, where all other remedies with which he was acquainted had failed to give relief. After the second dose of the sulphur, the dry cough was diminished, and she soon began to expectorate casts of the bronchial tubes, some of which were nearly an inch in length. The treatment was continued two days, and the patient did well. The doctor was induced to try the remedy in consequence of the experiments and recommendations of Doctor Banieri Bellini, Professor of Toxicology in the Royal Institute at Florence, published in the September number of the *Sperimentale* of 1869.

Three Cases of Bronchocele Successfully Removed.—In 1866, Dr. Wm. Warren Greene, of Maine, published in the Medical Record the report of a case of large bronchocele successfully removed, and advocated the propriety of an operation in similar cases.

He (*Am. Journ. Med. Sciences*) has now the satisfaction to add two other successful cases, and believes that a careful examination of them will convince his professional brethren that excision of an enlarged thyroid gland is a legitimate operation. The two latter patients were females, aged 40 and 35 years.

The steps of the operation, as he performed it, are briefly these: 1st. Exposure of the tumor by linear incision of ample length, avoiding most sedulously any wounding of the tumor or its fascia propria. 2d. Division of the fascia propria upon the director. 3d. Its reflection and the enucleation of the tumor with *the fingers and handle of the scalpel*, paying no attention to hemorrhage, however profuse, but going as rapidly as possible to the base of the gland and compressing the thyroid arteries. 4th. Transfixion of the pedicle from below upward with a *blunt* curved needle armed with a double ligature, and tying each half, or, when practicable, dividing the pedicle into as many portions as there are main arterial trunks and tying each portion separately. 5th. Excision of the gland and subsequent dressing of the wound as in ordinary cases.

In conclusion, he remarks that it is and always will be exceedingly rare that this operation is warrantable; *never*, for relief of deformity or discomfort merely; *only*, to save life.

Chloroform Vapor in Tenesmus.—Dr. G. Kaiser has used with much benefit the vapor of chloroform to relieve the tenesmus of acute and chronic dysentery. He puts a drachm of chloroform in a three-ounce bottle, attaching over the neck a rubber, and attaching to the other end a hard rubber or metallic canula. The canula is inserted in the rectum, and the bottle placed in warm water until the chloroform has evaporated. This is to be repeated two or three times a day until the tenesmus subsides.—*Nashville Journal of Medicine and Surgery.*

Sulphate of Iron in Suppuration.—A child burned nearly over the whole body was recently brought to the Child's Hospital at Lausanne. The suppuration was so abundant that the ward in which the patient lay became uninhabitable. The child was then placed in a bath containing two handfuls of sulphate of iron. The cessation of pain was almost immediate. After repeating the bath twice a day, for fifteen or twenty minutes at a time, the suppuration moderated, the fetid odor disappeared, and the patient rapidly recovered.—*Bost. Jour. of Chemistry.*

The Sphygmograph in Epilepsy.—M. Voisin, in the *Scalpel*, says that epileptic fits or vertigo produce—1st, a broken curve; 2d, a more than ordinary length of ascending lines; and 3d, dicrotism, which persists one or more hours after the fit. These characters are observed only at the time of the fit, and are noticed in healthy individuals whose circulation is disturbed by a long march or by a prolonged muscular effort. These sphygmographic signs are absent in simulated epilepsy.

Milk in Diabetes Mellitus.—A. S. Duncan, M.D. (*Lancet*), strongly advocates the treatment of diabetes with skim-milk exclusively. In the first place the milk diet is not objected to by the patient, but is relished, especially at the outset, when the thirst is excessive. The milk is as far superior to the meat diet as this was to any previously used; but it must be persevered in methodically and exclusively until convalescence is established. The use of milk for twenty-four hours will produce marked improvement; the quantity and density of the urine will fall, thirst and voracious appetite will disappear, the skin becomes moist and perspiration is re-established, the troublesome nervous symptoms are abated, and refreshing sleep succeeds to the previous sleepless, restless condition rendered intolerable by the incessant thirst. In two cases recorded this rapid improvement was noted. In another case, on the same treatment, at the end of three days, and with no other remedy, the urine fell from twenty-three pints sp. gr. 1038, to six pints. The other prominent symptoms of the disease also underwent a like rapid change for the better. The sugar of milk is altogether innocuous in the disease, as has been shown by experiment. It supplies the system with a saccharine, proximate, elementary principle, equivalent to such as vegetable food affords. The sugar of milk is destined to supply, for the nutrition of the young, an equivalent for the amylaceous and saccharine principles of the food of adults. Sugar in moderate quantities is not injurious in diabetes. It cannot be again converted into sugar by any morbid process in the liver or elsewhere, and hence cannot furnish a pabulum for the elaboration of diabetic sugar. The success of the milk treatment shows that in this disease it is not necessary to restrict the amount of fluid taken by the patient; the thirst bears a definite relation to the quantity of sugar voided, and subsides as the latter is reduced. All the patients Dr. D. has treated were left wholly on the use of skim-milk until convalescence had been for some time established, when lean meat and green vegetables were

added for dinner. Two cases of Bright's disease were also recorded, in which the skim-milk treatment was used with excellent results.

Varicose Ulcer of Twelve Years' Standing Cured by Obliteration of Veins.—M. A. McClelland, M.D., Knoxville, Ill., writes: "Patient an Irish laborer aged 55 years. Was under treatment five weeks for varicose ulcer of right leg. The ulcer first manifested itself twelve years ago and had been subjected to various methods of treatment, among which may be mentioned bandaging, blistering, &c. The treatment instituted at this time was merely calculated to put patient in a good condition for obliteration of the varicose veins. On Nov. 7th, patient being in excellent health, I placed and secured compresses over external and internal saphena veins and injected into the veins below the compresses 30 ♏ of ℞ Sol. Persulphate of iron ♏xx, Aq. Pur. ♏xl. I introduced the injections at six different points. Left the compresses *in situ* to prevent escape of coagula into the circulation. *Nov.* 8. Considerable pain in the course of the veins. Firm clots have formed in the saphenous trunks and anastomosing branches. Compresses loosened a little and the whole lower limb covered with water dressing. Pulse normal. Skin cool. *Nov.* 9. A good deal of soreness in the limb especially near the punctures, also tenderness and a slight superficial redness. Patient did not sleep any last night. Pulse slightly accelerated. Directed magnesia sulph. ℥ss. et cream tartar ʒ ij., to be followed as soon as bowels moved by morph. gr. ¼ every 4 or 6 hours. 7. P.M. P. expresses himself as much better. The soreness not near so great. Ordered continuance of the water dressing and morphine. The isinglass strips with which the points of punctures were covered were removed in the morning, which had, perhaps, something to do with the subsidence of the soreness. *Nov.* 12. There has been considerable redness and tenderness about the limb the past three days, and at one of the points, a point at which I have had doubts about the injection being thrown into the vein, there has been some discharge of an unhealthy-looking pus. Gave Tr. Ferri Chloridi gtt. xxx. *ter die.* Also Pil. Opii comp. (¼ gr. opii) night and morning. The ulcer is filling up and healing nicely. Removed compresses and bandage. Have had water dressing constantly applied. Patient sleeps well and expresses himself as feeling well. *Nov.* 16. There has been considerable discharge of pus from several points. The pus from the first point is of a more healthy character. The limb is losing its bronzed hue. The pain and heat are also subsiding. P. continues his soap and opium pills, and Tr. of Iron, with nutritious diet. *Nov.* 30. The patient has continued iron and nutritious food, with opium pills. He now leaves off the iron and takes instead Liq. Pot. Arsenitis and bathes leg with an infusion of oak bark. Ulcer healed. The leg troubled with exfoliation of epidermis and pruritus. *Dec.* 15. Leg well and patient at work.

"Too large a quantity of the iron solution was used. Two minims of the above solution at points two inches apart is sufficient and would obviate suppuration. The operation is a safe one by observing to have patient in good condition, using a solution of proper strength and in proper quantity, and by having compresses firmly secured to prevent escape of coagula into the circulation."

The Constricting Silver Ligature.—In the prize essay on the "Treatment of Aneurism, with Experiments for the Closure of Arteries by a New Method," by Benj. Howard, M.D., of New York, published in the *Transactions of the American Medical Association*, it is stated: 1st, That the constricting silver ligature is sufficient to induce permanent closure of an artery. 2d, That its use is free from destructive inflammation. 3d, That the *looseness* of the ligature, as described, *is essential to its permanence.* As far as he can ascertain, closure of arteries by his method has never before been accomplished nor suggested. After careful search he fails to find a recorded instance of ligature in which equal permanence has been demonstrated. Dr. Howard calls our attention to the following important typographical error in the *Transactions:* The fourth paragraph, page 506, should read *destructive* inflammation, instead of "*distinctive*" infl..mmation, as printed.

Treatment of Sciatica.—Dr. J. Waring Curran (*Med. Press and Circular*) usually treats this affection as follows: In a small porcelain vessel one grain of morphia and three grains of extract of belladonna are mixed with six drops of creasote. He gets the patient out of bed, standing as erect as the nature of the disease will permit, and begins making small incisions half an inch long, with an intervening space of three inches between each incision, cutting only through the skin and subcutaneous cellular tissues. The incisions are made alternate on each side of the nerve, beginning underneath the fold of the gluteus maximus. Having wiped off the effused blood, the composition is quickly rubbed in. The morphia and belladonna allay the pain, and the creasote sets up, if properly applied, a certain amount of local irritation, which is very desirable.

To every patient suffering from sciatica he exhibits iodide of ammonium, believing that its therapeutic power is superior to the iodide of potassium; but in no complaint will this be appreciated more than in the eruptive stages of syphilis and in diseases of the glandular system. The patient bent double with acute pain, will be found, after the incisions are made and the morphine composition rubbed in, able to move his leg freely in any direction.

Carbolic Acid in Obstinate Leucorrhœa.—Dr. Whitaker, of Cin. (*Cin. Lancet and Observer*), speaks highly of carbolic acid in the treatment of obstinate leucorrhœa. The application is made upon the cotton-wrapped sound. The instrument, so enveloped, is first introduced and the uterine surface cleansed; a new layer of cotton is substituted, medicated by immersion in a solution of proper strength, and applied to every portion of the uterine cavity.

Cardiac Hypertrophy.—Of 506 cases of granular kidney, reported by Carnael, cardiac hypertrophy was present in 177, while in 93 of these there was no valvular lesion.

Abstinence from Purgatives in Cases of Operative Surgery.—Dr. Theodore A. M'Graw, of Detroit (*Detroit Review of Medicine and Pharmacy*), reports a favorable case of excision of the elbow-joint, and alludes to one point in the treatment which he would specially insist upon, as well as in all cases of operative surgery, viz.: the abstinence from all purgatives until the fever resulting from the injury has subsided. Mr. Skey first called the attention of the profession to the injurious effects of purgation immediately after the loss of blood, asserting correctly that Nature refused to allow the fluids of the body to pass by the bowels until the vital fluid had recovered its proper volume. The same rule should be observed when great injuries have occurred with but little loss of blood. The shock to the nervous system, and the surgical fever following, alike contra-indicate purgative medicine.

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THE NAVAL STAFF RANK CONTROVERSY.

IN the good old days when the whole country was more simple in its habits and tastes, when wealth was more limited, and shoddy had not planted its aristocracy, when naval officers knew each other as naval officers only, and not as repellant corps; in those early days, when these men of the sea were banded into one family by the sympathies of poverty and patriotism, with almost a common purse and a mess wardrobe; in those days, the grand old heroes of the navy, Hull, Jones, Bainbridge, Warrington, Rodgers, and others, in the magnanimity and generosity of their hearts, came up to the authorities of their country, and in the following clear and simple language asked that their medical associates should share the honors enjoyed by themselves. In a letter of May, 1816, to the Secretary of the Navy, they say :—

"We feel it, therefore, as a duty incumbent on us to state, that we consider the Medical Department of such great importance to the navy of our country, that no reasonable measures ought to be omitted which could have a tendency to retain in the service the professional ability of those gentlemen who, by their experience, knowledge, zeal, and humanity, have procured the esteem and confidence of those with whom they have been associated; and we also beg leave to express our belief that no reasonable inducements would be objected to by Congress to procure for those who are engaged in a perilous service, and who are constantly exposed to the diseases of all climates, the best medical aid which the country affords. To effect this, it must be obvious that the rank and pecuniary emolument of medical officers ought to bear some proportion to what gentlemen of professional eminence would be entitled in private life; and we consider that justice requires they should, at all events, receive a compensation and rank equal to what has been enjoyed by the medical officers of the army."

Together they had heard the roar of battle, and shared the glories of those victories which gave the United States Navy its early fame. These old officers, both of line and staff, it is worthy of note, were fresh from the people, neither coming through any schools of special training to imbibe false notions of narrow and offensive exclusiveness. The war of 1812, with a nation of our own blood and race, was the baptism of the U. S. Navy, which had its birth and infancy in the revolutionary and Tripolitan contests.

These fraternal sympathies maintained their influences for some years after the conflicts in which they were born, and probably never were obliterated between the officers who had been personally associated in those conflicts. But as we necessarily came to station squadrons on the coasts of foreign powers, their natural and most intimate association was with those of the same race, language, and usages—those of Great Britain, upon whose navy ours was clumsily modelled. The fact of recent hostile relations tended to make closer those of social intercourse between British and American naval officers, from the fact that warriors of magnanimity feel an affection for antagonists whom they have been taught to respect by honorable conflict, and willingly dispelled its clouds in the sunshine of festive association. But in this intercourse a prominent distinction between the two services was observed, growing out of the very different social conditions of the two countries. The one a nation of classes broadly separated, legally recognized, and admitted by all as normal; the other a people without legalized social distinctions, and with all its citizens equal before the law. The existing national distinction controlled in officering the Royal Navy; the military branch being, as a rule, officered from the aristocratic or governing class, unknown to our political organization, and the allied corps officered from the body of the people, there was brought into the naval service the home distinctions, with everything to mark the inferior social position of the staff officers. With the general similarity between the two services, with an absence of years from the healthful influences of home institutions, the dying out of the war fraternization, and that tendency natural to men entrusted with authority to assume everywhere and at all times personal superiority, our line or military officers began to assume a social, inherent, and aristocratic superiority over their staff brethren of equal citizenship at home, and sometimes of the same family. An assumption the more offensive and incongruous, because at home the social position (as determined by local society) of the staff might be superior to that of the line officer.

It could not be otherwise than that such unnatural assumptions would beget continued and increasing discontent on the part of the staff, which, though slumbering for a time, must finally assume the form of open protest. The essential differences between the two services was shown in another apparently paradoxical illustration. The legalized aristocratic position of the British naval line placed them, from their own standpoint, equally above all our officers, line and staff. In this respect all the Republic officers were, nautically, in one boat; and this organic high elevation of the British officer placed him above jealousy of his learned plebeian

associate. And hence, to secure able men in the medical corps, the British Government did not hesitate to give it a higher rank than any known to the line corps of the U. S. Navy. But the continually unsettled and unfixed position of the American officer, losing at home whatever pretence of social superiority he had assumed over the staff-officer abroad, begat a vigilant jealousy of every advantage, every right, every claim to justice asked for by the staff; and this, perhaps, has been the source of the incomprehensible energy of the persistent opposition given to the claims of medical and other staff officers in the U. S. Navy. In the whole U. S. Navy, there being no capital of aristocracy on the British system, those who had the shadow of a resemblance to it thought the shadow worth contending for.

By Act of Congress in 1828, the "Surgeon's Mate," who was appointed by favor and without any standard of qualification, gave place to the "Assistant Surgeon," whose qualifications were strictly scrutinized by a Board of Medical Examiners. Under the new system, a body of well-educated and honorably ambitious young men entered the service, who soon found their condition inconsistent with their position as commissioned officers, and were little disposed to submit uncomplainingly to the pretensions of their line associates. They were, by the usages of the service, placed in the same apartments and associated with the midshipmen, whose juvenile habits were not favorable to professional study or preparation for the second examination required before being made full Surgeon. This was in imitation of the British usages as regarded medical officers.

The first public protest against this state of affairs, known to us, was an article in the *Madisonian*—the Government organ at Washington during the administration of President Tyler, in 1841—called the "Social Relations of Medical Officers in the U. S. Navy." This was soon followed, in 1842, by a pamphlet, "Exposition of the unjust and injurious relations of Medical Officers in the U. S. Navy." It may well be supposed that a literary body, such as that of the medical corps of the navy, with so much to stimulate their pens, would not rest idle under any convictions of wrong and injustice; and down to the late settlement of the question by Act of Congress, during a period of thirty years, the energies of the press have been engaged in discussing this reform, generally on the side of the staff through the whole contest, and towards its close almost unanimously so. The oldest and most voluminous writers in the medical corps have been Surgeons Clymer, Ruschenberger, and Wood. In addition to the labors of their own corps, the medical officers of the navy have had the aid of their professional brethren throughout the country, individually, and in county and State societies. The American Medical Association has repeatedly thrown its weight upon their side, and some of the most distinguished literary men and able newspaper writers of these many years have given their pens to the cause. It has had that endorsement of right and that assurance of success which is given by this earnest sympathy of the people, the press, and the intelligence of the country. These influences have been generally effective down to the present time. Although secretaries of the navy, when they first enter the department, are almost exclusively in contact with the most powerful influences of the line, attention to this subject has, in almost every instance, caused them to favor the interests, first of the medical, and then of the other staff-corps. In 1843, the Hon. Judge Upshur ordered a board of the senior surgeons in the navy to prepare a plan of rank, and of rules and regulations for the government of the medical corps, and the administration of all medical charges. This Board, by its action, showed its interest in the discipline of the service; for although exclusively of medical officers, it first made the provision that commanding officers of any grade should have rank and seniority over all medical officers, thus refuting the charge brought against them of seeking by their rank to interfere with military command and discipline. The report of this Board, proposing a better code of regulations for the medical department of the navy than any before or since suggested, was printed and lay unnoticed in the Bureau of Medicine and Surgery. As another step of progress, in 1844, the following general order very much improved the condition of assistant surgeons, especially as it gave them a right to a small private apartment:—

"NAVY DEPARTMENT, Dec. 16, 1844.

"Assistant Surgeons on board all national vessels are entitled to mess and have quarters with ward-room officers, and to receive the usual courtesies of such officers. J. Y. MASON."

This little revolutionary order of Judge Mason was accepted most cheerfully by our whole navy, for all had seen the false position of the assistant surgeon, and before its promulgation it was much the custom to invite assistant surgeons into the ward-room mess. This courtesy assistant surgeons, at great personal discomfort, sometimes declined, not willing to be in a position as guests on sufferance, which as commissioned officers they felt to be their right. Upon one occasion, in 1829, Commodore Jesse Duncan Elliott, of Lake Erie fame, anticipated Judge Upshur's order fifteen years, by ordering the assistant surgeon into the ward-room. But a progressive innovation like this, so cheerfully, to its credit, accepted by our own navy, was the cause of great commotion in that of Great Britain and in the medical profession of England. A like advance was demanded there, the Admiralty opposed it, the ministry followed the Admiralty, until it found that such was the temper of Parliament, it must either follow our example or resign on the power of a large majority vote against its course. It avoided the necessity by ordering, for their own service, the improvement made in ours,—being the first instance in which our navy set an example to that of Great Britain, instead of being its imitator.

In 1846, the Hon. George Bancroft, being Secretary of the Navy, took a warm interest in the subject of rank for medical officers, as did also the U. S. Senate, under the influence of the Hon. John Fairfield, of Maine. But a difference of opinion existed as to whether the regulation of this rank was an executive or legislative right. Mr. Bancroft claimed it as belonging to the executive, in which view many members of the national legislature sustained him. He determined to anticipate legislative action by a general order, and disinterring the report of the Board of 1843, he based his order upon its propositions with the following modifications: He struck out all rank proposed for the Chief of the Bureau of Medicine and Surgery, saying that he "wanted no military rank in the Department. All who came into it were for the time civilians, and surrendered their military position." He added two years to the time which the Board proposed before medical officers reached their highest rank (next to the highest in the navy), and, unfortunately, was persuaded to interpolate the "executive" officer as a participant in the reserved rights of the commander—an error of principle which has been fruitful of evil to the service, really making a double and divided command. This order of the Navy Department met with violent opposition from the line of the navy; some took upon themselves to disregard the superior authority of the department, upon the pretext that it had no legislative sanction. An official protest was made against it by a large body of line officers, but which was conclusively answered by the Hon. Walter Jones, of Washington City, in an argument consistent with his reputation as one of the first and most learned legal minds of his time. This settled, at that time, the question of executive prerogative, and in 1854, the regulation, having been in force as such for eight years, was enacted into law by Congress. With the exception of certain regulations by the Hon. J. C. Dobbin and the Hon. Gideon Welles, defining and limiting the privileges of the "executive" officer, no change was made in the position of staff officers until 1863, when four new and higher grades having been established for the line of the navy—leaving the staff officers the fifth instead of the second grade—Mr. Welles, following the example of Mr. Bancroft, sustained by the argument of Walter Jones, and the official opinion of Attorney-General Bates, issued a general order raising the staff corps (many officers of which had distinguished themselves in the rebellion) one grade. This remained the rule of the service for six years, when, upon the advent of the present administration, the Hon. Mr. Borie, on the first of April, 1869, issued the celebrated order, No. 120, annulling the regulation of Mr. Welles. The staff corps had no "reason to apprehend such a deed of sudden violence, because they stood in a position faithfully earned amid the hazards of a great war, in which a large proportion of their number fell; assured in that position by six years of unmolested occupation, their right sustained by the arguments and opinions of the most eminent and learned legal minds, sanctioned by four Attorneys-General and two administrations. The act, so humiliating and startling to its victims, was not intended by its authors to be permanent, or to result so disastrously to the navy and to individuals. It would be unjust to those who struck the blow to believe they foresaw its consequences. Such an assumption would be inconsistent with the declarations and known generous character of those who at the time controlled the Navy Department.

"There is every assurance that Mr. Borie deeply regretted the result, and was most desirous to see it done away with. Believing in a good to be accomplished by the order, he issued it in full confidence that these lower depths into which the staff corps were forced were so unjust and so dramatically conspicuous, that Congress would immediately redress a wrong so marked and so generally admitted."

Congress, however, failed to do so for nearly two years, and during all this time the staff corps remained in a most humiliating position, until they were restored to their former grade, with added improvements, by the bill which passed the third session of the Forty-second Congress, on the last night of its session, March 3d, 1871, as the result of this thirty years' naval intestine war.

In conclusion, it may be remarked as surprising that a question which every military service in the world has long settled should be such a difficulty with that of the U. S. Navy. But the reason is apparent. All other services belong to more military governments, the authorities of which understand the absolute necessity of a fixed rank for every military agent. But, as a body, our national legislature could never understand its significance or necessity. Each member of Congress has been free to make his position and establish his rank by a free and open contest, with no legal disabilities to hamper him, and hence could not recognize the difficulties of those who, placed in an artificial institution, had neither the right nor the opportunity of determining their position, but must accept that which the law gives them.*

To place any one in a military service without a defined rank proportioned to his services and value, is to thrust him, dressed in rags and tatters, into an exclusive and polished society, to meet its forbearance or encounter its sneers; even worse, it is to send him naked into a world of clothes, costumes, and ceremonies; to send him to the wedding without the wedding garment.

It would be doing the great body of the navy injustice to infer that a subject which has now the interest and the favor of the intelligence of the whole country, should have received none from the line officers of the navy. Upon the contrary, that good sense in the navy which is not aggressive upon, or jealous of, others' rights has been with the staff officers, and those naval heroes

* Even the civilian legislators, with the Judges of the Supreme Court, Consuls, and Ministers, all have a military rank with military honors when they come into association with military and naval institutions.

who are most honorably known to fame have been the friends and advocates of naval staff rights. There can scarcely be named one officer who has earned an honorable reputation before the country and the world, who was an opponent of justice to the staff corps; and the best apology for the opposition which was made, is in the hope that it came from those who did not understand the true principles of military organization, and the best interests of the naval service.

Reviews and Notices of Books.

On Epilepsy: Anatomo-Pathological Notes. With original Plates and Engravings. By M. Gonzales Echeverria, M.D., etc. etc. New York: William Wood & Co., Publishers. 61 Walker street. 1870. 8vo. pp. 386.

The title of this work indicates its contents. The author "does not claim to offer any new discovery," though he intimates he may "shed some light on subjects not well established." The cases of epilepsy which Dr. Echeverria has observed during the past ten years, in hospital and private practice, form the groundwork of the volume. A preliminary chapter treats of the modern doctrines respecting the nature or pathogeny of epilepsy. After this review the question occurs, What is epilepsy? and the answer is a reproduction, slightly modified in language, but not improved, of Schroeder van der Kolk's definition, which is as good a one, probably, as could have been selected. The adoption of this definition necessarily carries with it an expression of opinion of the anatomo-physiological doctrine held by the Dutch physician, namely, that the medulla oblongata is "the original seat of epilepsy," and the author adds, that he believes besides, "the disease primarily involves the vaso-motor nerves." To these views we should be warranted in supposing Dr. Echeverria committed if in the following chapter, on the pathological anatomy of epilepsy, we did not find him expressing the opinion, that degeneration of the cervical ganglion of the sympathetic, which he has noticed in the autopsies of some of his cases, is "proper to the disease." In his preface, written more than a year after the printing of the book, he writes: "Further opportunities of inquiry have occurred in the meantime, giving greater strength to my conclusions. Five additional autopsies of epileptics have regularly displayed the alterations I have pointed out in the sympathetic. The lesion is constituted mainly by a proliferation of the connective elements, and their subsequent substitution to the nerve-cells and fibres, finally undergoing retrograde degeneration. The change exhibited itself in various stages, throughout the nervous plexus around the cerebral and vertebral arteries, and in the cervical sympathetic. It operates essentially in the operations of the capillaries in the brain and medulla, and I am not aware of any mention made of such a lesion of the sympathetic as proper to epilepsy." Here we have described all the histological characters of sclerosis of the nervous tissue, and its course to regressive metamorphosis; in other words those nutritional changes which have long been under the name of chronic inflammation of these tissues. We are inclined still to look upon them as secondary, occasional, and accidental, and no wise as constituting an essential anatomical character of epilepsy, or as throwing light upon its pathogeny. More observations and better evidence are required to establish the author's thesis.

Chapter III. contains an analysis of 306 cases of epilepsy, and has much interesting matter concerning sex, age, and hereditary influence in connection with the disease.

Chapter IV. is devoted to Accidental Causes, and Chapter V. to the Frequency and Nature of the Epileptic Attacks, Aura, Paralytic Symptoms, Appearance of the Retina, State of the Circulation and Respiration, and Changes of the Urine. A large mass of clinical facts is used in valuable illustration.

With regard to the treatment of Epilepsy, the subject of Chapter VI., nothing new or very satisfying is said. Chief reliance is placed on the bromide of potassium, but no new facts are brought forward as evidence of its curative power. The violence of the paroxysms was lessened in many of the cases in which the author used it, and the intervals between the fits were often much lengthened. We find it stated, "as an acknowledged fact, that any hydrotherapic (-peutic?) course which will render more regular and active the peripheral circulation will prove beneficial in epilepsy," an assertion we do not doubt. The doctor adds: "I could not tell of what great advantage packing in a wet sheet may be in epilepsy to induce quietness and sleep." But why does he not if he has the data, that a means, which we believe is but too little known and understood, may have its measure of credit, and the professional information warrant a resort to it. The propriety of a generous diet and the importance of bodily exercise are very properly insisted on. "Of the various drugs praised for the cure of epilepsy," Dr. Echeverria seems to have but little liking; and his faith in their specific action is less. As a nervine tonic cod-liver oil is praised, as well as turpentine, the latter particularly for removing the irritable state succeeding to the fits, and in uterine epilepsy it is asserted to be especially valuable. Cauterization—setons to the nape of the neck are said to go a great way towards hastening recovery; but here we have a general statement unsupported by proof. Our own experience is that neither are beneficial, and, indeed, are often harmful. Three cases are related where trephining was done for the relief of epilepsy. Two of them died subsequently, without any marked benefit after the operation, and in the third a cessation of the attacks is stated to have followed and to have lasted up to the time of the report, some time subsequently. In commenting on these three cases and their ending, the author writes: "I need not assert that judging from my own experience in the matter, and from the analysis of cases reported by different authors, I am in favor of trephining the skull for the relief of epilepsy due to local injury of the head." The terms of the proposition would be more correct, we think, if worded somewhat in this way,—In certain cases of epilepsy following injury to the skull, we are warranted in resorting to trephining.

Epileptic Insanity is very briefly considered, the author promising a work devoted to this subject.

The chromo-lithographs and heliographic engravings are well executed. The book is well printed and very attractive in appearance, but is disfigured by innumerable typographical errors. We would advise the author to have the second edition carefully revised by some one familiar with the language, for in the present one, sentences of impossible English are constantly occurring, in which it is difficult to guess at the meaning, and which materially lessen the usefulness of the book, and probably do injustice to the author.

Physics and Physiology of Spiritualism. By W. A. Hammond, M.D. New York, D. Appleton & Co. 1871.

This little treatise deals with phenomena that have made much noise in the world, and the history of which

is not yet completed. The object of Dr. Hammond is to show that the performances of the so-styled spiritualists can be explained by well known and well recognized physical and physiological laws. The question whether he has fully succeeded in this attempt will be variously answered according to the views of the reader. Those to whom Spiritualism is a religion will only be confirmed in their faith by such works as these; for faith, when it is strong and dominant, does not ask the aid of reason, and will not listen to its suggestions, and other conditions being the same, prefers a religion that is opposed to reason, and clings to it with all the more tenacity the more clearly and the more frequently its inconsistencies are pointed out.

"You can't presume too much on the stupidity of people," said President Walker, of Harvard, to a young pastor at his ordination. There is, therefore, little reason for hope that this work, valuable as it is, and convincing as it is in many features, will have much influence to stay the march of Spiritualism, though it certainly would be of service to doubting and candid inquirers.

Again, this work does not fully answer the broad question that Spiritualism suggests, whether there is not in organized beings a force, or a manifestation of a force, of which we as yet know little or nothing, and which, if understood, might perhaps explain a thousand mysteries. The dark and strange phenomena of magnetism, of clairvoyance, of trance, of somnambulism, of impressions, and of personal presence, are the opprobria of science.

SPERMATORRHŒA: ITS CAUSES, SYMPTOMS, RESULTS, AND TREATMENT. By ROBERTS BARTHOLOW, A.M., M.D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio; Lecturer on Clinical Medicine, and Physician to the Hospital of the Good Samaritan; Lecturer on Morbid Anatomy, and Pathologist to the Cincinnati Hospital, etc. New York: William Wood & Co., 61 Walker Street. 1870.

THIS is the third edition of Professor Bartholow's little treatise on spermatorrhœa. The material has been rewritten and rearranged, and an appendix of formulæ added, rendering the work the most practically useful one extant for the purposes of the general practitioner. The author has not seen cause, in his enlarged experience, to amend any of his views in regard to spermatorrhœa, but is more than ever convinced that it is a *neurosis*, and that the treatment must be based on this pathological basis. The reception given to the two previous editions is sufficient proof that the work contains some valuable matter not to be obtained elsewhere.

THE GYNÆCOLOGICAL RECORD. A Book of Blank Forms, intended as an Aid to the Busy Practitioner in recording Gynæcological Cases; with an Appendix of Blank Leaves and Tables for the Ready Analysis of the Contents of the Book. Prepared by JOSEPH G. PINKHAM, A.M., M.D., Corresponding Member of the Gynæcological Society of Boston, Fellow of the Mass. Medical Society. Approved by the Gynæcological Society. Boston: James Campbell, 18 Tremont Street. 1870.

THE object of this volume is sufficiently indicated by its title. The blank forms have evidently been prepared with much care, and will greatly facilitate a uniform and systematic record of gynæcological cases. Many points of interest that might otherwise be overlooked will of necessity receive due attention by the practitioner, who avails himself of the printed forms, which will also effect a very material saving of time and labor. An excellent feature of each blank is the outline of the anterior aspect of the body, on which may be readily pencilled the area of tenderness or of tumor. An outline of a median section of the body is also given, so that the relative position of the uterus and other organs may be noted with the least possible trouble. Plenty of blank pages are left at the end of the book, so that details may be written to any desired extent. An analytical table is furnished for summing up results, and an index for convenient reference. The paper is of the best quality, and the style of binding is substantial and elegant. The author takes very little credit to himself for his labor, but he has really done the profession a very material service, and we hope to see his Record come into general use.

BODY AND MIND. An Inquiry into their Connection and Mutual Influence, specially in reference to Mental Disorders, etc., etc. By HENRY MAUDSLEY, M.D., Lond., F.R.C.P., Prof. Med. Jurisprudence, University College, London, etc. London: Macmillan & Co. 1870.

THE lectures forming the principal part of this volume appeared in the *Lancet* at the time of their delivery, and present the author's views on the physical condition of mental functions in health; on the causes of certain forms of degeneracy of mind and their relations to other disorders of the nervous system; and on the relations of morbid bodily states to disordered mental functions. In the first lecture the author declares physiology and pathology of mind to be two branches of one science. Hence he who would study the one wisely and well must study the other also, and hence the deplorable results of the study of insanity as an art mysteriously separated from general medicine. The author is of opinion that the inductive method should be applied as rigidly in the investigation of mind as of other natural phenomena, and that our inquiries should begin with the observation of the simplest physiological manifestations in animals, children, idiots, and savages. He then proceeds to detail various experiments with frogs and other animals, made with a view of distinguishing between voluntary and automatic motions. These considerations lead naturally to the nervous system of man, and to the multiform operations of the great nerve centres. Memory, volition, muscular expression, organic sympathy, and the influence of mind on body, are a few of the topics fully discussed.

The second lecture takes up mental disorders, including idiocy, cerebral development, the weight of the brain, the moral sense, insane neuroses, aura epileptica, and the tyranny of organization. In the third lecture we find much about hysterical, pubescent, sexual, periodic, puerperal, and other forms of insanity; about tubercle and the relations of phthisis to mania, delirium, vitiated blood, and the unity of body and mind. To set forth this unity is the chief aim of these lectures, and certainly the author's life-long devotion to the study of the mental and physiological functions renders his opinions well worthy the attention of all who are interested in such studies, and what physician is not? It has been thought by some that the teachings of Professor Maudsley lead toward materialism, and that he unduly exalts the importance of the body in its relations to mind. Referring to this supposed tendency in his writings, he says: "I know not why the Power which created matter and its properties should be thought not to have endowed it with the functions of reason, feeling, and will, seeing that whether we discover it to be so endowed or not, the mystery is equally incomprehensible to us, equally simple and easy to the Power which created matter and its properties."

The appendix contains a paper on the Limits of

Philosophical Inquiry, and one on the Theory of Vitality. The former is a remarkably able reply to an address on the same subject by the Archbishop of York. The author protests against the assumption by the Archbishop that all scientific inquirers are necessarily identified with the so-called positive philosophers, and shows how grossly the purposes of such inquirers have been misrepresented. The inconsistency and lameness of the reverend gentleman's arguments are exposed, and the fallacy of his deductions made glaringly apparent. Disdaining the arbitrary limits that he would set to scientific investigation, Professor Maudsley says of science: "A calm acquiescence in ignorance until light comes is its attitude. It must be borne clearly in mind, however, that this scrupulous care to abstain from presumptuous assertions does not warrant the imposition of any arbitrary barrier to the reach of its powers; but is quite consistent with the conviction of the possibility of an invasion and a subjugation of the unknown to a practically unlimited extent, and with the most strenuous efforts to lessen its domain." Again, "The calm observer and sincere interpreter of nature cannot set capricious or arbitrary limits to his inquiries at any point where another may assert that he ought to do so; he cannot choose but claim and maintain the right to search and try what every man, Jew or Gentile, Mussulman or Brahmin, has declared sacred, and to see if it be true. And if it be not true to him, what matters it how true it be? The theologian tells him that the limits of philosophical inquiry are where faith begins; but he is concerned to find out where faith does begin, and to examine what sort of evidence the evidence of things unseen is. And if this right of free inquiry be denied him, then is denied him the right to doubt what any visionary, or fanatic, or madman, or impostor, may choose to proclaim as a revelation from the spiritual world."

The essay on the Theory of Vitality is a review of the opinions of others on that subject, with queries and suggestions by the author. The author strikes us as being a little abstruse in some of his expressions; but the subject is still so much in the dark that it is difficult to discuss it clearly, and it is gratifying to find it treated of without dogmatism or assumption. The high reputation of Professor Maudsley in the departments which he has made the subject of special study and investigation, give a deep interest to everything he has to say about the relations of body and mind.

TRANSACTIONS OF THE SEVENTEENTH ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA. Pp. 144. 1870.

THE book opens with a happy address by C. Tate Murphy, M.D., in which the portraiture of the *true heroic physician* is truthfully given; and in closing, the fraternal regard which should exist between the physician and clergyman is referred to in no unmeaning terms. He also adds these apt remarks:—"Is it not passing strange that clergymen, who go hand in hand with physicians to the house of suffering and sorrow, will lend their names and influence to such unworthy objects as to the testifying, through the daily press and numberless cheap and worthless almanacs, of the wonderful results of *patent pills, powders, syrups, ointments, bitters, and liniments*, each having its own high-sounding title to deceive the ignorant and unwary?" The example of Rev. Henry Ward Beecher, who lately reproached with such withering sarcasm a notorious truss-humbug, is commended to these clerical gentlemen. The progress of medical science, medical scholarship, and the flourishing state of the society, are mentioned by Chas. J. O'Hagan, M.D., the retiring President.

Dr. E. Burke Haywood, of Raleigh, records the first successful case of ligation of the external iliac artery in North Carolina, that he is aware of. The remainder of the volume is taken up with essays on "The Topography and Prevailing Diseases of New Hanover County," by S. S. Satchwell, M.D., and "Diarrhœa of Children," by Will. Geo. Thomas, M.D.

The paper of Dr. Satchwell, although containing many interesting facts relative to the prevailing diseases, topography, etc., of that section of country, is too much drawn out in his laudation of the employment of calomel, general blood-letting, and other depletants and lowering remedies; and in his desire to condemn the teachings of "Todd, Bennett & Co.," he unwarrantably assails—perhaps unintentionally—Dr. Wm. A. B. Norcom, of Edenton, N. C., whose annual address in 1868 represented the views of Anstie, Chambers, Flint, Thomas, Hewitt, and others, who are honored at home and abroad.

It argues well for the future prosperity of the profession in that State, when we find that a few earnest and devoted men, within the space of a few years, have advanced the Society to such a prosperous condition. Upon the vigor and strength of our State medical societies depend the influence and status of the medical profession in this country.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Jan. 25, 1871.

DR. A. L. LOOMIS, PRESIDENT, in the Chair.

DR. ROGERS, on behalf of the Microscopical Committee, reported the supposed needle in the substance of a liver presented by Dr. Finnell to be really such—it having been broken about its middle.

QUACKERY AND ITS RESULTS.

DR. FINNELL exhibited several specimens taken from the same individual, consisting of the stomach, two kidneys, portions of the liver and lungs, and a few calculi found in the bladder. The patient was a female, aged thirty, who died of phthisis. For a year past she lost confidence in the ability of the profession to understand her case, and had been persuaded to trust herself to the skill of a carpenter, who possessed a work on domestic medicine. He studied into her symptoms carefully and found that they corresponded in the book with what was called "*retrocessent* (?) *gout complicated with miliary fever.*" He commenced his treatment by ordering fifteen drops of tincture of iodine three times a day. Finding that in a few days she vomited immediately after taking the medicine, he substituted purgatives. But the purulent expectoration, hectic, and night sweats continued notwithstanding. Being somewhat discouraged after a fair and determined system of purgation, he resorted to emetics "to empty the chest." These, however, proved to be unproductive of good, and the patient finally sank and died.

The neighbors believing that the patient's death had been hastened by the carpenter, an autopsy was made at the instance of the coroner. The lungs were found loaded with tuberculous matter, the liver was fatty, as were also the kidneys, the stomach was intensely congested—due probably to the large quantities of stimulants taken before the carpenter had the case—and there were calculi found in the gall-bladder.

The verdict was, death from phthisis; and although it was evident that the carpenter had hastened her

death, it was thought best, in view of other evidences of mental unsoundness on his part, not to push the case.

DEATH FROM A BLOW UPON A DISTENDED STOMACH.

Dr. Finnell exhibited also a heart taken from a man, thirty years of age, who, while wrestling with another in a quarrel, rolled over on the floor, was picked up and placed in a wagon, dying within an hour after the fracas.

Dr. Finnell made the autopsy, in company with Dr. Cushman, and failed to find anything in the shape of a lesion, save the insignificant ones in the heart. This organ weighed fifteen ounces, the left side was dilated, and there was an atheromatous condition of the aorta extending some distance along the tube. Every other vital organ was examined and found in a perfectly healthy condition. In view of this state of affairs, and taking into account that at the time of the quarrel the stomach was loaded with food, it was believed that death had been caused by a blow on the epigastrium, paralyzing the great sympathetic. The heart was empty at the time of the autopsy.

There being no other specimens the Society went into executive session.

Stated Meeting, February 8, 1871.

Dr. A. L. Loomis, President, in the Chair.

The minutes of the last meeting were read and accepted.

PLACENTA PRÆVIA.

Dr. Finnell presented a uterus with placenta completely attached, except for a square inch or so of its edge at the internal os. The specimen was of interest from the rarity of finding so slight a detachment. The woman, who was in the eighth month of her first pregnancy, had been seized with sudden hemorrhage while walking about the house, and sent for a physician. On his arrival the hemorrhage had ceased, and she declined an examination. She was strictly cautioned to keep her bed, but paid no heed to the advice. A few days later, after some unusually hard work, the flooding recurred with such violence, that before aid could be summoned she was dead.

The case came under the coroner's supervision, and the speaker had made the autopsy in conjunction with Dr. Cushman, finding an eight months' fœtus and the condition of placenta above described. The woman was twenty-two or twenty-three years old, a model of grace and strength, and had been in perfect health. Could assistance have been rendered, and delivery promptly effected by version, no doubt the child might have been saved, and probably the mother also.

DEATH FROM CHLORAL HYDRATE (?)

Dr. Finnell presented a second uterus. The patient was a ballet-girl, about twenty-three years of age, who had continued to follow her vocation in the sixth month of pregnancy. She was taken with labor-pains at the theatre one evening, and delivered of a dead fœtus in the course of the night. There was little hemorrhage; the uterus contracted well, as seen in the specimen, and everything about the case appeared very favorable. The patient was somewhat restless, however, and to procure sleep the attending physician gave a dose of chloral hydrate—half a drachm, as nearly as could be ascertained—at ten o'clock in the morning. At twelve she was sleeping quietly and easily; the pulse was regular; there was no tympanitis, no sign of post-mortem hemorrhage—nothing, indeed, to cause the slightest anxiety. The physician, therefore, said he would not call again that day, but left directions for the dose of chloral hydrate to be repeated at eight o'clock in the evening, if necessary. At that hour it was administered by the husband; half an hour later the woman died. The friends had noticed that she became very cold after the first dose; after the second, the coldness suddenly became alarming; she sank rapidly to her death, which they considered due to the medicine. That was also the opinion of the speaker, as well as of the coroner's jury, summoned at the request of the attending physician, who could conceive no probable cause for the fatal result. There had been no untoward symptom whatever up to the time of his leaving her, and there was no reason to suppose that she had taken anything else than the drug prescribed.

At the autopsy, fourteen hours after death, the weather being intensely cold, and the body having been kept in a cold room, what first commanded notice was the evidence of rapid decomposition—more rapid than the speaker had ever seen, even in the victims of sun-stroke last summer. The whole surface was covered with blotches of all sizes and colors, indicating profound blood-poisoning; and Dr. F. believed that hypnosis was one of the effects of chloral hydrate in large doses. Owing to the strong opposition of friends and relatives, the examination made was very imperfect, and confined to a partial investigation of the abdominal and pelvic viscera. This discovered no lesion whatever, not even a sign of inflammation.

In reference to a question, Dr. Finnell stated that neither the heart nor the stomach was examined, nor had there yet been any investigation of the quality of the drug employed. He supposed it was pure, and he had not the least doubt that it was the cause of death. He had been, hitherto, in the habit of using the chloral hydrate quite freely, but he should hesitate to do so again.

Dr. Janeway had given the chloral hydrate in drachm doses, without ill-effects. In delirium tremens it was the rule, at Charity Hospital, to exhibit it in large doses, pretty often repeated. He had seen a drachm of this repeated within three hours, though it was not his own habit to allow so short an interval. Half-drachm doses were not thought much of; they produced very little effect.

Dr. Whitall had employed the remedy a good deal among the patients at the Colored Home, generally in doses of half a drachm, sometimes in those of a drachm, and only with benefit.

Dr. Finnell had an insane patient, very difficult to manage, especially in the day-time, whom a ten-grain dose would commonly quiet; and he always yielded to fifteen grains.

The President had used the drug very freely, and in a great variety of cases, carrying the dose sometimes to forty-five grains. He had seen nothing in its action that would lead him to fear it.

It seemed to be the general opinion of those present that no conclusions could be drawn from the case reported, owing to the imperfection of the autopsy and the uncertainty about the drug administered.

CANCER OF LIVER.

Dr. Whitall presented the liver, with gall-bladder, a portion of colon, and two biliary calculi, from the body of a colored woman, forty-six years of age. She was admitted to the Colored Home Hospital in the latter part of November; was born in Maryland; was a servant, unmarried, had never borne children. No special family history, except that her mother was the subject of paralysis. Save two attacks of hæmoptysis and several of rheumatism, her general health had been

good up to September last, when her legs began to swell, her eyes got yellow, and she found herself losing strength, but complained of nothing else. On admission, pulse 78, respiration 23, temperature 100.5°. She was deeply jaundiced. Careful physical examination revealed no disease of heart or lungs, but considerable enlargement of liver, which reached the level of the umbilicus. No pain or tenderness; no ascites or œdema. She simply grew weaker and weaker, and died, conscious to the last.

The autopsy showed no change in any organ except the liver, which was enlarged, and studded throughout with little cancerous masses. At the transverse fissure there was an excess of fibrous tissue. The gall-bladder was firmly adherent to the transverse colon. It contained two calculi, weighing about a drachm each, and exhibiting facets, which showed that others must at some time have been present. These had probably escaped into the colon, though no cicatrix could be discovered.

Dr. Janeway wished to know whether the stomach was healthy, since the small cancerous nodules, all of about the same size, so evenly distributed throughout the liver, would seem to indicate secondary carcinoma. Such deposits in this organ were usually found secondary to carcinoma of the pyloric end of the stomach. He had recently examined a liver containing several small cancerous masses, and one, two inches in either diameter, near the free border and just above the colic flexure, where the disease had probably originated in the omentum. The cancerous omentum, with its glands, was so intimately united with the adjacent cancerous part of the liver that it was impossible to say where one ended and the other began.

Dr. Whitall was certain there was nothing of the kind in this case. All the viscera were carefully examined, and the liver alone was diseased.

LUNG-CAVITY FRICTION-SOUND SYNCHRONOUS WITH HEART'S ACTION.

Dr. Whitall presented also the thoracic viscera and the intestines of a colored man, 31 years of age, dead from phthisis pulmonalis. He had been troubled for a year or two with a paroxysmal cough. In September last this grew much worse, and he began to suffer from hectic; pulse 146; respiration 40; temperature 103.5°. Physical examination showed extensive tuberculous disease of the right lung, with signs of a cavity under the clavicle. Under the middle of the clavicle, upon the second rib, could be heard a distinct friction-murmur, synchronous with the heart's pulsations. It was loudest at the close of expiration and just before inspiration, when it was double, there being a strong systolic and an exceedingly faint diastolic sound. Upon inspiration the second sound was lost entirely, and the first became much less distinct. At the distance of perhaps half an inch from the point of greatest intensity, the murmur disappeared, and over the heart there was no abnormal sound whatever. This murmur continued during the time the patient remained in hospital, though gradually becoming less marked, and the day before death it could still be detected.

The post-mortem disclosed no important lesion in any organ except the lungs and the intestines. In the latter there was extensive ulceration of Peyer's glands, though the patient had had no diarrhœa. The right lung had unusually firm pleuritic adhesions, in some places a quarter of an inch thick. It was solidified from top to bottom by cheesy deposits, except that there was a large cavity at the apex. The cavity did not quite reach the surface of the lung, there being indurated lung-tissue between it and the thoracic wall. The heart was normal.

The case was of interest in connection with one presented by the President at the meeting of October 26, 1870 (See Med. Record, vol. v., p. 471, Dec. 15, 1870). It would seem to confirm the view then advanced, that the sound was produced in the cavity itself, and was not due to any pleural or pericardial friction.

The meeting adjourned.

Correspondence.

INEBRIETY AS A DISEASE.

To the Editor of the Medical Record.

Sir—In a recent issue I find a statement of principles adopted by the American Association for the Cure of Inebriates, at its late meeting in New York. This statement declares that "inebriety is a disease, curable in the same sense as other diseases are," and that "the great demand of the age is the establishment of asylums for the cure of inebriates."

It is a very common form of begging the question as to the nature of obscure symptoms, bodily or mental, to define them as "disease." It must also be confessed that medical men, as well as members of the other learned professions, sometimes impose a technical meaning upon common terms, for reasons not always the best. But no one can say that either of these fallacies is contained in the statement referred to. Inebriety is plainly used in the sense of intoxication, the disease is frankly described as alcoholic poisoning, and its cause as "a constitutional tendency, which may be inherited or acquired."

Now, whatever else may be said of it, this is at least intelligible. The disease of inebriates has been held to consist in an irresistible tendency to alcoholic potations; whence it has received the name of dipsomania or oinomania. Upon this definition the reality of a cure might perhaps be disputed in cases where a fit of drunkenness came on shortly afterwards. But we may now hold the cure to be complete as soon as the patient is no longer drunk. And who shall say that this is not a cure "in the same sense that other diseases may be held to be curable?" The best remedy for rheumatism has been declared to be "six weeks." May not "six hours" be considered a cure for inebriety, as much more certain as it is more speedy? In this sense, too, it will be possible to have faith in the statistics of inebriate asylums in which more than ninety per cent. of the cases are reported cured.

But the serious question is, how these principles are likely to bear upon the usefulness of asylums for inebriates. The experiment of special institutions for this class has not, I admit, been so thoroughly tried as it deserves to be. In its favor is the fact that removal from temptation can be made more complete, and continue for a longer time, than in any other way. The impersonal restraint of an institution is also more readily submitted to than the interference of relatives and friends. On the other hand, a strong tendency of the bringing together of inebriates, as of other like classes of persons, is to still further demoralize them. The principle of segregation, as opposed to aggregation, which is surely gaining ground in all our charitable and reformatory schemes, should be adopted, as far as possible, in the cure of this class. Moreover, the question of the employment of time in inebriate asylums is still very far from a satisfactory solution. But the success

of these asylums must depend, above all, upon their ability to preserve and strengthen in their patients the power of self-restraint. To this end, the feelings of guilt and shame, which remain with all but the most hopeless cases, are a most important aid. Now, the doctrine that inebriety is a disease leaves no place for such feelings. The drunkard, as the subject of morbid tendencies, "constitutional or acquired," is helpless and irresponsible. I do not believe it possible to contrive a theory more fatal to the success of their work than this primary assumption of the Association.

This conclusion is the result of many years' personal experience of inebriates in an asylum for the insane, and it seems to me justified by the history of inebriate asylums. Fifteen years ago, the well-known Dr. Turner explained to me his theory of inebriety and its cure. I need not say it was precisely that of the Association. Three years later, I listened to the addresses of Rev. Dr. Bellows, Edward Everett, Dr. John W. Francis, and others, at the laying of the corner-stone of the asylum at Binghamption. In these addresses the idea of the institution as a practical charity, simply, was most prominent. Some vague distinction was attempted between intemperance and inebriety, as between a vice and a disease, but this was spoken of by Dr. Bellows as merely "a convenience of moral nomenclature." The purpose of the asylum was declared not to be based upon any theory of inebriety as a disease. Yet how this theory was still made all-important by Dr. Turner in his administration, and how financial fraud grew naturally out of medical charlatanism, to the temporary ruin of a noble charity, is known to all.

Let me conclude with offering the following practical "principle," as a substitute for the final ones of the Association:—

Inebriates who exhibit a mental impairment, not the proximate effect of spirituous liquors, should be provided for in local or State asylums for the insane. Wilful drunkards should be placed, with other classes of the "morally insane," in reformatories, where steady labor and strict discipline are enforced.

Faithfully yours,

L. A. Tourtellot, M.D.

Utica, N. Y., 1871.

REGULATION OF THE SOCIAL EVIL.

To the Editor of the Medical Record.

Sir—It has been on my mind for some time past to drop the Record a line on the subject of the "social evil," for the purpose of suggesting to the profession, and all others interested, that the most practical and humane way of arresting one, at least, of the bad fruits of it would be that of not admitting any diseased *man* into houses of prostitution. But I am anticipated or preceded by some remarks of your own in your last number, based on an article in a Rochester paper.

That "victim of the evil" is certainly correct in her propositions, for no other way can so well save the inmates of such houses from their peculiar diseases, as well as the wives of faithless husbands and the victims of seducers. No legislation that I have yet seen on the subject reaches the root of the evil like that here proposed. The moral effect, too, would be a hundredfold greater than the plan of subjecting to examination and licensing the prostitutes only. That affords no exemption to themselves, but merely gives a guaranty to their visitors that they (the visitors) will contract no disease from them.

If any reformation can be hoped for from discussion of the subject, I trust the medical journals, and the profession generally, will take it up with a view to the welfare of both sexes and of society in every way. Our relations in life as physicians make it, I feel, an imperative duty with us.

Zenith, M.D.

Brooklyn, March 31st.

CARBOLIC ACID IN CARBUNCLE.

To the Editor of the Medical Record.

Sir—Your notice of Dr. J. C. Nott's advocacy of local applications of carbolic acid in carbuncle (Vol. 5, No. 24) led me to try its efficacy in a severe case under my care, in which other remedies had failed. The axilla was the part affected, the inflammation being quite violent and extensive. I ordered a solution of the acid (1 part to 40 of water), a sponge moistened in the solution to be applied to the part and renewed every two or three hours. During the first day the symptoms were much modified, and after the second day all applications were discontinued; resolution, complete and rapid, being the result of the treatment.

J. D. Rogers, M.D.

225 E. 48th street, New York.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from March 19th to April 4th, 1871, inclusive.

By S. O. No. 109, War Dept., A. G. O., March 18, 1871, the following officers are relieved from duty in the Department they are serving, and ordered to report in person for assignment to duty to the General Commanding the Department they are transferred to:—

Ghiselin, Jas. T., Surgeon.—From the Department of the Columbia to the Department of the East.

Byrne, C. C., Surgeon.—From the Department of the Missouri to the Department of the East.

Town, F. L., Surgeon.—From the Department of Dakota to the Department of the East.

Hartsuff, A., Assistant Surgeon.—From the Department of the Columbia to the Department of the Lakes.

Janeway, J. H., Assistant Surgeon.—From the Department of the East to the Department of the Missouri.

Happersett, J. C. G., Assistant Surgeon.—From the Department of the East to the Department of the Missouri.

Brooke, Jno., Assistant Surgeon.—From the Department of the East to the Department of the Columbia.

Miller, G. McC., Assistant Surgeon.—From the Department of the Missouri to the Department of the South.

Lippincott, H., Assistant Surgeon.—From the Department of the Missouri to the Department of the East.

The officers serving in the Department of the East, named in this order, will be relieved from duty when those assigned to that Department shall have reported for duty.

Winne, C. K., Assistant Surgeon.—By S. O. No. 23, Headquarters Military Division of the Missouri, March 25, 1871, granted leave of absence for 60 days, with permission to apply for an extension of 60 days to the Adjutant-General of the Army.

Tilton, H. R., Assistant Surgeon.—By S. O. 56, Headquarters Department of the East, March 20, 1871, assigned to duty as Post Surgeon at David's Island, New York Harbor.

McMillin, Thos., Assistant Surgeon.—By S. O. 52, Headquarters Department of California. March 18, 1871, assigned to duty at Angel Island, San Francisco Harbor, California.

Hoff, Alex. H., Assistant Surgeon.—By S. O. 52, C. S., Department of California, assigned to duty at Alcatraz Island, California.

Heizmann, C. L., Assistant Surgeon.—By S. O. 48, Headquarters Department of the Platte, March 22, 1871, to accompany detachment of 4th Infantry from Omaha, Nebraska, to Louisville, Kentucky, and, upon completion of this duty, return to these Headquarters; and by S. O. 49, C. S., Department of the Platte, granted leave of absence for 20 days.

Medical Items and News.

Dr. J. G. Sewall is the gentleman who reported the "Extraordinary Instance of Female Endurance" in our last issue, and not "J. G. Seall" as printed. This is an instance of one of those unaccountable occurrences in which, before a journal goes to press, the Editor is satisfied that everything is as it should be, and is surprised to find that gross errors exist due only to the traditional carelessness of the printer. The remark will apply also to the arrangement of the plates of Dr. Speir, which should have appeared on a preceding page instead of dividing the interesting article of Dr. Hewit. Under the circumstances the Editor does not hold himself responsible for such stupidity.

A Dispensary for Sick Children has been opened at 406 East 15th St. Dr. B. F. Dawson is the President of the Board, David Magin, M.D., Secretary, and John C. Jay, M.D., Treasurer.

Pictures for Bellevue Hospital.—Mrs. Virginia D. Atwood recently presented through Dr. Sayre a collection of forty-one splendid lithographs and chromos to be placed in the Surgical Ward of Bellevue Hospital. This is an instance of far-sighted benevolence which deserves emulation.

Female Medical Students.—Twenty women are studying medicine in the Zurich (Switzerland) College.

Opium Eating.—Fifty-one dollars were paid for opium for one pauper on the St. Johnsbury (Vt.) Poor Farm last year.

Medical War Obituary in France.—M. Blain lately died of pyæmia in consequence of a wound on his finger whilst taking care of a German soldier. Dr. Ehrmann, son of Professor Ehrmann, of Strasburg, died of his wounds, received whilst tending the fallen in one of the engagements on the Loire. Dr. Bardinet, Director of the Medical School of Limoges, has lost his son killed in battle. Dr. Damicourt, who had joined the Army of the West, found a glorious death during the campaign. Dr. Milliot was killed whilst returning to wounded lying on the field of battle at Froeschviller. He had walked some distance to get a supply of linen, and was hit by a piece of a bursting shell.—*Lancet.*

A Warning.—Several cases of poisoning by chloral hydrate have been mentioned. They were people who took the drug without the directions of medical men. —*Med. Press and Circular.*

A Good Example.—Her Majesty the Queen of England has been vaccinated, and hopes her example will be generally followed.

Calabar Bean.—Dr. Campbell Black, of Glasgow, treated a case of tetanus by calabar bean, and although the patient died, he still thinks the physiological action of the drug places its use in tetanus beyond the pale of empiricism.—*Med. Press and Circular.*

Blood-Letting.—Dr. Swayne is convinced of the great power of blood-letting over puerperal convulsions.

The Alumni Association of the College of Physicians and Surgeons, N. Y., held their thirteenth annual meeting in the lower hall of the College, February 28th, Dr. George A. Peters in the chair. The minutes of the previous meeting were read and approved, after which the following deaths were reported by the secretary, with the class year prefixed:—(1823) Galen Carter, April 2, 1870, New York; (1824) Rich'd Titus Underhill, February 1, 1871, Croton Point, N. Y.; (1828) Benjamin Drake, January 11, 1870, New York; (1831) James Harcourt, July 31, 1870, Tompkinsville, S. I.; (1838) Thaddeus M. Halsted, July 26, 1870, New York; (1842) James Hyslop, May 9, 1870, New York; (1845) Israel Moses, October 4, 1870, New York; (1849) William B. Bibbins, January 16, 1871, New York; (1854) Sylvester J. Sawyer, November 25, 1870, New York; (1858) Andrew J. Willetts, May 23, 1870, Brooklyn, N. Y.; (1864) William S. Willis, January 29, 1870, Port au Prince; (1866) Lewis Applegate, December 4, 1870, New York; (1866) Edward Frothingham, January 24, 1870, near Yokohama, lost with the Oneida.

The Trustees of the Prize Fund reported as follows: Amount paid in as reported at last meeting, $3380.00, since which time twelve contributors have added $127.00, and a former contributor $25.00, making the total amount of funds contributed by seventy-five members, $3,532.00.

The Committee on Prize Essays (Drs. E. Eliot and C. R. Agnew) reported that they had received two essays, one with the motto "*Nil sine labore*," and the other with the motto "*Lo! all grow old and die, but see again how on the faltering footsteps of decay Youth presses!*" but advised no award. Their recommendation that the $200 offered should be added to the fund, and a prize of $400 be offered for the ensuing year, was unanimously adopted.

The Councillors reported the following nominations, which were adopted: *President*, Ezra M. Hunt; *Vice-President*, Cornelius R. Agnew; *Secretary*, John Shrady; *Assistant Secretary*, A. Norton Brockway; *Treasurer*, James L. Banks; *Committee on Prize Essays*, Gurdon Buck, Francis Delafield, Ellsworth Eliot. *Councillors*, Robert A. Barry, Harvey H. Gregory, Fred'k A. Burrall, George A. Peters, Alexander N. Dougherty, John J. Milhau, George Peck, Gouverneur M. Smith, T. M. Cheesman, John R. Vankleek, Desault Guernsey, Foster Swift, Alanson S. Jones, John L. Leconte, William Lee, P. B. Mauran, Nathan S. King, J. K. Merritt, Henry K. Olmstead, Joseph E. Culver, A. E. M. Purdy, Edwin A. Goodridge, James O. Smith, George Wilkes, Abraham Dubois, Edwin H. Van Dusen, Joseph M. Cleaveland, Albert Smith, John J. Crane, Willard Parker, Jr., E. Barry Dalton, Oliver W. Gibbs, John J. Ketchum.

The retiring president, Dr. Peters, then read an entertaining and suggestive address which, on motion, was ordered to be printed for circulation among the members. The meeting then adjourned.

Woman's Medical College of the New York Infirmary.—The first annual meeting of the Alumnæ Association of this college was held at the parlors of the Infirmary, 128 Second avenue, on Friday evening, 24th March. Dr. Celestia A. Loring presided. After

salutatory remarks by Prof. Lewis, a piquant chronicle of the class of '70, the first graduated at the college, was read by its Secretary, Dr. Eliza B. Phelps.

Dr. Emma C. Ward, of the same class, delivered an address characterized by mature and comprehensive thought and logical clearness of expression, now and then relieved by a touch of humor. It discussed the principles that should guide the early education of girls, so as best to fit them for attaining the two great purposes of life—self-development and help of others. If, from the very beginning of a girl's education, we were to secure proper cultivation of the special senses and of mechanical skill, together with the acquisition of such mental habits as observation, judgment, and originality, we should prepare her both to choose the vocation best suited to her and to succeed in it. In our present system all these faculties were too often sacrificed to mere memory. Let the child's questions be respected and her curiosity encouraged; let her be taught botany in the field and geology at the river-bank; let her be expected to distinguish the bird-songs, and to report the habits of the singers; let the hand be taught to follow the eye in drawing, and ear and voice be made sensitive and sure by singing; and before reaching her teens she would have a training worth the whole curriculum of the boarding-school. She would then use her books not blindly, but intelligently, with interpretation and comment from her own observation and reflection. Coming more particularly to the study and practice of medicine, the speaker showed how, in its various branches, it made the largest demands upon the delicacy and skill of eye, ear, and hand, the quickness and clearness of judgment, the self-reliance and readiness of resource, which only some such training as she had sketched could give. The same principles would apply to the education of boys; and only when both sexes should receive an education, general and technical, equally wise and thorough, could it be determined whether or not the standard of attainment is the same for women as for men.

The address was followed by some sparkling verses from Prof. Edwards, showing more music in (chemical) cymbals than the uninitiated would ever have imagined.

The second annual Commencement of the college took place on the evening of the 28th, at the Union League Hall, which was filled, to the aisles and the lobbies, by a very intelligent audience. The degree of M.D. was conferred, by the President, Samuel Willets, upon Miss Annie A. Angell, of New York, and Miss Mary A. Wattles, of Kansas. Miss Ellen F. Hammond, of Connecticut, received a certificate of having passed satisfactorily the first examination. (The course at this college requires three years' lectures. The examination in Anatomy, Physiology, Chemistry, and Materia Medica is held at the close of the second year; that in Practice, Surgery, Obstetrics, and Hygiene at the end of the course.) Mr. Marlon Sands, one of the managers, spoke of the work which the College aimed to accomplish, and of its means for doing it thoroughly. Rev. Thomas S. Hastings, D.D., earnestly enforced the principle that woman's true enfranchisement is not to be sought as a concession from man, by speeches and resolutions, but to be conquered by such genuine worth and work as have everywhere proved that they can command opportunity and success. Judge Daly took the audience back to antiquity and Athens, and showed how, in spite of custom and even positive law, a woman's knowledge and skill in midwifery had so approved themselves by their results as to compel the admiration of her censors and judges, and to force a repeal of the law which forbade their exercise. The Valedictory Address was gracefully delivered by Dr. Wattles, who told why young women study medicine. It won frequent and just applause; now for its playful wit, and now for its noble expression of earnest purpose.

Management of Scabies.—Dr. M'Call Anderson (*Richardson's Hand-Book of Microscopy*) greatly prefers in the treatment of scabies, in private practice, the following formula:—℞ Styracis liquidi, ʒj.; adipis, ʒij. Melt and strain. This is a clean-looking ointment, has a pleasant aroma, kills the acari, and does not irritate the skin in the least, but, on the contrary, rather soothes it.

German Medical Officers.—According to the *British Medical Journal*, the German army has lost above one hundred and fifty medical officers.

Prof. Elliot's Library.—The medical library of the late Dr. George T. Elliot has been secured for the Medical Library and Journal Association of this city—a proceeding which reflects great credit upon the energy and the generosity of some of its leading members. The library is a large and exceedingly valuable one, complete in almost all the departments of medicine, surgery, and obstetrics, many of the books being of the latest date, with a large number of valuable medical journals, both domestic and foreign.

The Gastric Douche.—Dr. Ploss, of Leipsic, has invented an apparatus called "the gastric douche," and similar in design to a nasal douche. He believes it may be useful in cases of poisoning, and in diseased conditions of the stomach.

A Growing Medical Library.—The Library of the College of Physicians and Surgeons of New York City contains 15,000 volumes.

Von Graefe's Library.—Hirschwald, a Berlin bookseller, has the library of the late Professor Von Graefe.

Prof. Chas. A. Lee.—This distinguished teacher has resigned the Chair of Materia Medica and Hygiene in the Medical Department of the University of Buffalo. His resignation was only accepted in consideration of enfeebled health.

Purification of Chloral Hydrate.—Professor F. A. Flueckiger states (*Phar. Cent. Hall*) that much of the commercial chloral hydrate is impure, and unfit for use until purified. It is usually met with in irregular masses containing moisture, and having a sharp, pungent odor, indicating partial decomposition. The salt may be readily purified by dissolving it in *pure* bisulphide of carbon (soluble in forty-five parts of the menstruum at 18° C.) and allowing the salt to recrystallize by the spontaneous evaporation of the solvent. The product appears in colorless prismatic crystals, not hygroscopic, and free from acid reaction.

The Aborigines of Alaska.—Dr. D. F. Lincoln, Boston, Mass., in his "Medical Notes upon the Aborigines of Alaska" (*Boston Medical and Surg. Journal*) gives the following interesting facts:—The largest Indian family Mr. W. H. Dall, of Alaska, ever knew comprised six children. It is a universal rule, both with Indian and Innuit, that the family is small; it generally numbers from one to three children, and an extraordinary proportion of their women are barren.

The Innuit woman sometimes causes expulsion of the fœtus at about the fourth month, by forcibly kneading and compressing the uterus between the hands. He has known of two or three such cases. As to the use of instruments, such as bodkins or wires, the Indians are entirely too timid to venture upon such

experiments. A woman's confinement is not a reason for excluding any visitor, male or female, who may choose to look on. A wooden trough, stuffed with moss, stands between the mother's knees, all ready to receive the baby. It is taken up, washed with their invariable substitute for soap—stale urine—and wrapt in a rabbit skin. Disagreeable as is this liquid soap, it certainly does its cleansing work as well as that manufactured by civilized men. The woman always gets up in a very short time; this observer has known but one who lay in as long as two days.

They do not suffer from uterine complaints after childbearing. India is generally are destitute of fortitude in bearing even slight pain. But in confinement there does not seem to be any actual pain to complain of.

Arrangements for the Meeting of the American Medical Association on Tuesday, May 2, at San Francisco, Cal.—Union and Central Pacific Railroad—From Omaha to San Francisco and return, $125. Tickets good for sixty days, and sold *only* to holders of certificate from Permanent Secretary. This includes the wives and families of all who desire to participate in this excursion. Each person must be named in the certificate. From Harrisburg to Omaha, and return, $49. From Philadelphia, $53.20. Tickets sold *only* to holders of certificate as above. To Omaha from Cincinnati, Louisville, Nashville, one fare for the round trip. From Washington, $59.30. Local arrangements have been made with other roads; hence application should be made at starting for *excursion* tickets. *Time*—From Omaha to San Francisco, nearly four days; to Omaha from Boston, 64 hours; New York, 62 hours; Philadelphia, 58 hours; Washington, 60 hours; Chicago, 22 hours. *Meals*—At convenient points, and good, 75 cents to $1.00. *Sleeping Cars*—Each double berth, Omaha to Ogden, $8; Ogden to San Francisco, $6. Passengers will be taken by the Pacific Mail Steamship line, *via* Panama, at one-third less fare, either way. Tickets sold *only* to holders of certificate. Those desiring certificates should apply immediately, inclosing *stamp*. Wm. B. Atkinson, M. D.

Permanent Secretary American Medical Association.

N.B.—It is suggested that as many as possible should be at Omaha by April 26th or 27th, at the latest, reaching San Francisco the day before the meeting.

Catalogue of Medical Department of the University of the City of New York.—The Executive Committee of the Alumni Association of the Medical Department of the University of the City of New York purpose the publication, at the earliest possible date, of a complete catalogue of the graduates from that institution since its foundation. The records of the faculty having been destroyed in the burning of the college building some years ago, this project is one that should be seconded by every one of the alumni, of whom between two and three thousand are scattered throughout the United States. It is earnestly requested that each of these will, without delay, forward for enrolment his full name and post-office address, with his professional history, including date of graduation, posts of honor and trust held, etc., and also any information which he may possess concerning former classmates who have since died or retired from practice. Communications should be addressed to the Secretary, Chas. Inslee Pardee, M.D., 72 West Thirty-fifth street, New York.

The Relations of the Brain and Nervous System to the Viscera.—Dr. Brown-Séquard will deliver two lectures on the above subject at the College of Physicians and Surgeons on the 15th and 28th of April, at 8 P.M. The profession are invited to attend.

Mr. Paget's Health.—It is no secret, in London professional circles at least, that for some weeks Mr. Paget has been *hors de combat*, and even in a somewhat critical condition of health, the result of an inoculation with poisonous matter from a post-mortem examination. We regret to hear that abscesses, both in the shoulder and loins, have greatly reduced the strength of Mr. Paget; and that he is now suffering from an erratic erysipelas of a low type, under which his strength has not as yet enabled him to rally satisfactorily.—*Lancet.*

Deaths of Professors Wagner and Niemeyer.—Among the victims whom the medical profession has furnished, in connection with the recent Franco-German war, have been two men of more than common note—Professor Albrecht Wagner of Konigsberg, who died at Dole on February 15th; and Professor Felix von Niemeyer of Tübingen, who has died lately at Nancy. The cause of death in both cases was typhoid fever, contracted in the discharge of duty. Dr. Wagner was well and favorably known in Germany for his works on the Resection and Regeneration of Bones (translated a few years ago by the New Sydenham Society), on Hydrophobia, Diabetes in connection with Carbuncle, Resection of Nerves, etc. He had been attached to the army of General von Manteuffel as surgeon-general. The name of Dr. Felix von Niemeyer has become well known among us through the translations of his excellent *Text-Book of Practical Medicine* and his *Lectures on Phthisis*. He was Director of the Field Ambulance at Nancy.—*British Medical Journal*, March 25.

An Anecdote of a New England Physician.—Old Dr. Stearns, of New London, Ct., in his latter years kept a drug-store. A gentleman one day purchased a cigar of the doctor, and lighting it began to smoke. "Please do not smoke in the store," said Dr. S., politely, "it is against our rule." "But you *sell* cigars," rejoined the gentleman, "sell them to smoke, don't you?" "Yes, sir, we sell cigars," replied the doctor a little sharply, "and *we sell physic; but we don't allow it to operate in the store.*"

A Common Source of Lead in Drinking Water.—Mr. Danna Hayes, State Assayer and Chemist, Mass., calls attention (*Am. Chemist*) to the use of ice-pitchers composed of different metals as a fruitful source of lead poisoning.

The Initials "J. G. A." should have appeared at the end of the obituary of Dr. Van Rensselaer in our last issue.

New Publications.

Books Received.

Surgical Memoirs of the War of the Rebellion. Collected and published by the United States Sanitary Commission. Vol. II. Edited by Prof. Frank H. Hamilton. New York: Hurd & Houghton. 1871.

Insanity and its Treatment: Lectures on the Treatment, Medical and Legal, of Insane Patients. By G. Fielding Blandford, M.D., Oxon., Fellow of the Royal College of Physicians in London, &c. With a Summary of the Laws in force in the United States on the Confinement of the Insane. By Isaac Ray, M.D. Philadelphia: Henry C. Lea. 1871.

Transactions of State Medical Society of Michigan. 1871.

Original Lectures.

PROLAPSUS UTERI, ITS CHIEF CAUSES AND TREATMENT.

By THOMAS ADDIS EMMET, M.D.,

SURGEON-IN-CHIEF OF THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

(Read before the N. Y. State Medical Society, Feb. 7th, and the Medical Library and Journal Association, March 10th, 1871.)

(Concluded from page 76.)

We may next briefly consider lacerations of the cervix during parturition, and I may also class the lateral operation for dysmenorrhœa when extended to the vaginal junction, as frequent causes of hypertrophy of the uterus, and consequent prolapse of the organ. In proportion to the amount of gaping do we recognize the resulting effects of the injury. Laceration in the median line, from before backward, is attended with comparatively the least of the evil consequences, unless the fissure has become the seat of chronic inflammation consequent upon retarded healing of the surfaces. The bad effects are less marked from the fact that the lateral walls of the vagina keep the sides of the laceration in contact. The reverse is the consequence of lateral laceration or division; and, in proportion as the uterus descends into the pelvis from this cause of irritation, will the gaping be increased, owing to the posterior flap catching on the recto-vaginal septum, while the anterior one is forced forward in the axis of the vagina, towards its outlet. Gradually, from this forcing apart of the flaps, chronic follicular inflammation is set up, which extends upwards within the canal, and in proportion to the extent will the mucous membrane be rolled out, from above, to become the seat of an intractable erosion. These follicles, thus inflamed, gradually undergo cystic degeneration, with fatty degeneration of the neighboring tissues. At first the neck is unusually soft and hypertrophied, as well as the remaining portion of the organ. As the little cysts burst and empty themselves of a clear, serous fluid, the tissues become indurated, especially if nitrate of silver has been used to heal the supposed ulceration. Ultimately, however, as the emptied cysts contract, atrophy of the neck, as well as the whole organ, takes place. Without a familiarity with the true condition, the previous existence of laceration may be readily overlooked, and is to be recognized by drawing together opposite edges of the cervix by means of a tenaculum in each hand, when the fact will be fully appreciated, and that, in comparison with the size of the entire uterus, a less amount of hypertrophy of the cervix exists. After denuding the lacerated surfaces the flaps must be brought together and united by deep silver sutures. This is necessary, for, as often as the erosion is healed by any application, will it recur from the constant spreading apart of the flaps on exercising. This operation is the only means of relief, for, after thus removing the exciting cause, the hypertrophy will gradually diminish, and with it the prolapsus.

We recognize, also, a cause of hypertrophy, with prolapse, in long-existing and neglected disease from the too frequent or injudicious use of nitrate of silver and other means resorted to for healing a supposed ulceration. The cervix has been not only hypertrophied, but indurated to such a degree as to entirely change the normal condition of the tissues. To bring about a healthy change in the condition of the mucous membrane is impossible, but the induration and weight of the uterus may be lessened by the use of sponge tents, were it not that great risk always attends the dilatation of an indurated cicatricial cervix. Sometimes much can be accomplished by the frequent use of the acetic solution of cantharides, for the purpose of blistering the cervix. If the disease has not become too extreme, from the counter-irritation and profuse watery discharge produced by its use, a healthy change may be brought about. As a rule, however, it will be necessary to denude to the submucous tissue the entire cervix with a pair of scissors, and then slide a sufficient amount of the vaginal tissue over the stump to cover it, and secure the flaps by silver sutures, leaving a sufficient gap in the line over the os uteri. It is an operation very readily performed, from the great ease with which the flaps can be formed from the vaginal tissues. By thus removing tissues bearing a close analogy to that existing in a tonsil which has long been the seat of chronic inflammation, and transplanting in its place a fresh set of healthy mucous follicles, we gain a condition by which the absorbents remove rapidly the induration and hypertrophy. This operation was introduced by Dr. Sims a number of years ago, and has proved a most valuable procedure.

We may now consider briefly the hypertrophy and consequent prolapse of the uterus due to disease of the lining membrane of the canal. The term chronic inflammation should not be used, from the fact that we so rarely meet any product except in the acute form. With so-called ulceration there is no loss of tissue, and after death, when the capillary vessels have been emptied, we may look in vain for any evidence of the previous disease. When the disease is confined to the lining membrane and the submucous tissues, the condition is due to perverted nutrition, or, in other words, imperfect circulation. We may have hypertrophy of the papillæ or mucous follicles of the membrane lining the organ, from chronic engorgement, with enlargement of the uterus, or atrophy from the reverse cause.

With the means at our command, we are seldom able to form an accurate idea as to the extent of the disease involving the canal. From the greater number of follicles below the internal os this portion of the canal is the most liable to disease, but extending gradually to the fundus and submucous tissue, according to its duration. When an erosion exists on the cervix I believe that it is, almost without an exception, but a cropping out of the diseased condition above, or an excoriation from the uterine discharge constantly bathing the parts. As such, it should be treated by applications to the disease above, when it will be found to heal rapidly under the use of hot water vaginal injections and by keeping the surface clean. Of all remedies, none would be so serviceable as frequent uterine injections of hot water for contracting the capillary vessels, and above all keeping the parts free from irritating discharges. Unfortunately, however, we have no means of doing this properly, except in such cases where we may deem it safe to fully dilate the canal with sponge tents. When used, the pressure thus exerted is often beneficial, especially when the discharge is transparent and of a gleety character. After the canal has been fully dilated, the nozzle of a Davidson syringe may be introduced with safety in the canal, and a large quantity of hot water injected with great benefit, a bed-pan being used and the water thrown in with care. Unless the canal is dilated sufficiently to introduce the index finger readily, any uterine injections must be attended with great risk of serious consequences and should never be used. In the application of remedies to the uterine canal, we must necessarily include healthy tissue from our inability to define accurately the extent of the disease. Therefore we must be careful in not doing too much and in selecting agents of a character as free from risks as possible. To the use of all

caustics and to the nitrate of silver, I am unqualified in my opposition. Applications of an astringent character are most serviceable, and I know of none answering better for this purpose than the nitrate of silver, were it not for its after-effects. Induration and contraction of the canal is certain to follow its use, in the vast proportion of cases. Erosions readily disappear under the use of potassa cum calce and other caustics, but it is only done by destroying the integrity of the mucous follicles by producing cicatricial tissue, while the evil consequences are not always in proportion to the strength or frequency of use. Chromic acid, diluted with equal parts of water, Churchill's tincture of iodine, solution of the persulphate of iron, acetic acid, when induration exists, chlorate of potash and glycerine, tannin and glycerine, and carbolic acid with equal parts of glycerine, are the agents which experience has taught me are attended with the least risk. The chromic acid answers better when there exists a muco-puriform discharge, and should be applied a few days after each menstrual period. It is necessary that the patient should be confined to bed for a week at least and carefully guarded from exposure to cold. It is not safe to apply this remedy, or any other, to the uterine canal, if there is any indication of lurking cellulitis or tenderness on pressure. We must rely on constitutional means, hot-water injections, and daily vaginal dressings of glycerine, until the case is in a proper condition. Chromic acid, when diluted as above mentioned, does not seem to have more affect on healthy tissue in the uterine canal than is produced by the use of iodine. It, however, does not answer for office practice, and in many respects carbolic acid is preferable. The latter remedy can be applied with advantage once a week, and has the merit of safety, when the patient is not directly under control. Some years ago, I introduced an instrument called an applicator, which is a flattened flexible silver sound. After ascertaining the exact curve of the canal by means of the silver uterine probe, a portion of cotton is twisted around the applicator; the latter is then bent to the proper curve, and having saturated the cotton with the agent to be applied, it is passed to the fundus. Before making the application, the canal must be freed as much as possible from the accumulated discharge by means of a proper syringe, or the effects of the remedy will be, to a great extent, neutralized. It is necessary that the cotton should be only well moistened, as an excess of fluid will often give unnecessary pain and excoriate the vagina.

We will now consider the surgical procedures to be instituted when the case has become a hopeless one, either through neglect or failure after resorting to all other means applicable. After labor either imperfect involution remains, and as the heavy organ settles in the pelvis, the upper portion of the vagina becomes gradually dilated, or this portion of the passage having been overstretched and not recovering its tone, allows the organ to rest on the floor of the pelvis until hypertrophy results from obstructed circulation. Gradually the cervix is pressed downward and forward in the vaginal axis, so as to produce a degree of retroversion of the fundus according to the advance made in the prolapse. If the perineum has not been lacerated, and the vesico-vaginal septum, the least yielding portion of the canal, maintains its integrity, the advance towards procidentia is very gradual. By degrees a rectocele is formed which in time dilates the vaginal outlet; a cystocele may then follow, with the cervix uteri protruding at the vulva. More frequently the integrity of the vesico-vaginal septum remains unimpaired, while the uterus escapes over the fourchette in consequence of the greatly dilated vaginal outlet, while the relative distance between the cervix and neck of the bladder has remained unchanged.

Lastly, laceration of the perineum may have occurred in labor, short of involving the sphincter ani. The vaginal column being thus deprived of a proper support, it will prolapse from below upwards, forming both a rectocele and cystocele, dragging the uterus down to appear externally when complete inversion of the vagina has taken place. In rare instances, a cystocele will first form, dragging down the uterus to the vaginal outlet, with only a prolapse of the upper portion of the recto-vaginal septum, and the occurrence of a rectocele does not take place until, after long standing, the vaginal outlet becomes sufficiently enlarged, by absorption, to offer it no longer a support.

For the relief of procidentia, Marshall Hall many years ago suggested, but did not I believe put in practice, the plan of uniting two denuded strips running parallel on each side from near the cervix uteri to the vaginal outlet, thus making a double vagina as it were. The procedure was found, however, to fail in practice, as the anterior wall would prolapse and gradually press back the septum, or by absorption separate the recently united surfaces until sufficient space was produced for the escape of the uterus.

December 20, 1864, I read a paper on Procidentia Uteri before the New York Obstetrical Society, which was published in the *New York Medical Journal*, April, 1865. From this paper I quote:—"This fact" (referring to the failure of Marshall Hall's method) "led Dr. Sims, in February, 1858, to commence the scarification near the neck of the bladder, with two denuded surfaces, from a common point, diverging in the form of a triangle to each side of the cervix uteri. These surfaces were brought together and secured with interrupted silver sutures in the median line. By so doing, the neck was crowded towards the cul-de-sac, and the fold of vaginal tissue thus formed in front of the cervix effectually prevented any prolapse of the uterus. Previous to the time of Dr. Sims' removal to Europe, in the summer of 1862, we both had frequently operated in this manner without the necessity of any modification occurring. In September, 1862, after three months of great suffering, one of the first patients operated on by Dr. Sims in this manner, presented herself at the Woman's Hospital for relief. She stated that during four years she had been entirely relieved by the operation, when suddenly, while in the act of lifting, she was seized with a persistent tenesmus, greatly aggravated in the upright position. On examination the line of union was found perfect, with no prolapse of the vaginal wall. But the neck of the uterus had slipped behind the septum into the pouch, thus throwing the fundus into the hollow of the sacrum and fixing the organ in this position. With great difficulty the neck was disengaged. After returning the uterus to its normal position, immediate relief was obtained. On reflection it became evident that the occurrence of this accident would be in ratio to the extent of the previous procidentia. The more complete the procidentia from relaxation of the vaginal walls the greater the pouch resulting from the amount of tissue folded in. From malposition, the whole organ (but more especially the cervix) is always greatly hypertrophied. After restoration to its normal size, as the neck is no longer grasped by the fold, the latter would naturally in time override the cervix, and force it into the pouch. Nor could this result be guarded against, although the line of union be extended at the time of operating so as to crowd the cervix uteri fully into the cul-de-sac of the vagina. Impressed with these views, I succeeded in obtaining an examination of two cases operated on by

me some eighteen months before. In both the neck was found behind the septum, but producing no inconvenience beyond a backache following any undue exertion. Both had experienced entire relief for a long time, but feared that they were gradually relapsing into their old condition."

On the 10th of October, 1862, I operated on one of these cases, to overcome this difficulty, by closing the triangle. In other words, I connected the two diverging lines by a continuous denuded strip from the extremity of one side of the triangle to the other, running across in front of the cervix uteri, thus effectually preventing the possibility of an entrance into the pouch. Dr. Sims subsequently followed the same plan, leaving, however, a small opening in the cross section, immediately in front of the cervix, which, from its position, is to a certain degree objectionable. During some six or seven years I operated frequently without making any particular change, but fully appreciated, from the many difficulties to be overcome and constant practice necessary for its proper performance, that the operation could never come into general use. Half an hour at least was occupied in denuding the surfaces, the whole having to be completed before any portion could, with advantage, be brought together, while during this time quite a serious loss of blood frequently occurred. Throughout the whole operation the hand of an assistant, occupied in holding an instrument for the purpose of keeping the cervix in the cul-de-sac, obstructed the light and was in the way. From the mobility of the parts it was exceedingly difficult to keep the proper line of scarification so as to bring the freshened surfaces exactly in the median line. A failure in the column of a direct line of support allows the uterus ultimately to increase the curve and prolapse on the concave side of the line. Above all, to pass the continuous sutures through the cross section in front of the uterus, and to fold over properly these surfaces, the one on the other, without drawing them together as with a running string, was exceedingly difficult.

Some two years ago I attempted to simplify the operation. After anteverting the uterus the patient was placed on the left side, Sims' speculum or some modification of the instrument introduced, and the neck of the uterus kept crowded up into the cul-de-sac by a sponge probang, in the hand of an assistant. I then endeavored to find some point about half an inch to each side of the cervix and a little behind the line of its anterior lip, from which I could draw, with a tenaculum in each hand, a triangular-shaped fold up to a common point directly in front of the uterus. When two points were found which could be thus brought together without undue tension, one of the tenacula securely hooked in the tissues, to indicate the point, was released from the hand for the purpose of freshening a surface about half an inch square, at that designated by the other tenaculum. Then a similar surface was freshened around the first tenaculum, and a strip removed from the vaginal surface in front of the uterus, about an inch long by half the width. Having passed a needle armed with a silk loop beneath each of these freshened surfaces, a silver wire was attached to the loop, drawn through, and secured by twisting, thus bringing together, it will be seen, these three points in front of the cervix uteri, with the effect of forming a like but somewhat smaller fold than that produced by Sims' method with the cross section. The chief advantages gained are these: with the loss of only a few drops of blood, the neck of the uterus, at the beginning of the operation, can be secured in the cul-de-sac out of the way, and thus dispensing at the same time with the hand of an assistant. By the old operation the tissues to form the fold were drawn from behind, as it were, and wrapped around in front of the cervix, while the chief support was from the column formed in the median line, by turning in the redundant tissues below. By the last method a direct lateral support is gained from the pelvic fascia above, giving, in many cases, by this means alone, a sufficient support entirely independent of the column to be formed afterwards from the tissues turned in along the base of the bladder. The completing of the operation, after having fixed by this means the position of the cervix, is very simple. Two folds on the base of the bladder, in the shape of an ellipse, will have been formed, extending from the points secured in front of the uterus nearly to the vaginal outlet. This excess of tissue is to be turned in by finding, from time to time, opposite points near the crests of each fold, which can be brought together free from tension. With the view of preventing a loss of blood, but half an inch need be denuded at a time on each side, the sutures then introduced and secured, thus advancing step by step until the operation has been completed by turning in the folds until lost on the vaginal surface. From four to five sutures should be inserted to the inch, a silk loop being passed first, to which the silver suture is to be afterwards attached, for the purpose of drawing it through. The needle should be introduced so as to include a liberal amount of tissue, and the sutures twisted only just sufficiently to bring the raw surfaces in contact, or the tissues included will become strangulated from the swelling of the parts. They can be removed on the eighth to the tenth day. No special after-treatment is needed beyond keeping a self-retaining sigmoid catheter in the bladder, as after the operation of vesico-vaginal fistula, until the parts have become well united, and at the same time confining the patient to the recumbent position for two or three weeks. Where the upper portion of the vagina is only dilated, so as to let the enlarged uterus rest on the floor of the pelvis, I perform the same operation in principle, but the line is extended only for a short distance until a point has been reached where the fold can be terminated on a common level with the vaginal surface.

Beyond doubt many cases can be relieved, so far as local means are in question, by rest, astringent injections, and a properly fitting pessary. But beyond a certain point these means are futile, and a pessary in any form will prove but of temporary benefit and in the end positively detrimental. When the vaginal walls are very much relaxed, it is impossible to prevent them from crowding down within the circumference of any fenestrated form of pessary to an extent producing almost strangulation, unless it is of a sufficient length to put the passage on the stretch. In either case, however, the result is the same by increasing the capacity of the vaginal canal and enlargement of the uterus from obstructed circulation. When a solid instrument is used, like a globe pessary, the capacity of the canal is also increased by the walls crowding in around it and pressing it forward as a dilator. One instrument after another will be resorted to, with the necessity for increased size for relief, until the canal may be dilated to the full extent of the pelvic passage, and ultimately the patient becomes bed-ridden or the procidentia remains complete. When there is no laceration of the perineum, or dilatation of the vaginal outlet from rectocele, the operation described as applicable for the anterior wall may be of itself sufficient for relief. If, however, the posterior portion of the canal has been involved, the uterus will gradually advance and ultimately escape from the vagina, even after the anterior operation has been performed, but the relative distance between the cervix uteri and neck

of the bladder gained by the operation will remain unchanged, as we have seen. While the radial distance between these two points is preserved, the base of the bladder will swing as a trap-door, were the hinge placed under the pubes, and advances with the uterus as it is draggod down by the prolapsing posterior wall, to pass through the vaginal outlet as soon as it has been dilated sufficiently. This condition has been frequently overlooked, and the operative procedure consequently unjustly condemned. After the first operation it is impossible for the uterus to prolapse in consequence of the increased radius gained in the position of the cervix from the symphysis pubis as a common centre, provided the lower portion of the canal is in a state of integrity. When such is not the case, it will be necessary either to close the perineum alone, or in addition perform the operation for rectocele. The operation on the posterior wall for rectocele resembles closely, in general principle, the one already described. The denuded surfaces are to extend from the fourchette upward in the form of an ellipse toward the cul-de-sac, until the protruding tissues have been turned in to the vaginal level. It is necessary to operate with the patient on the back, with Sims' speculum introduced under the arch of the pubes. The operation is a very difficult one to perform from the want of room, and the venous hemorrhage is frequently excessive. The superabundant tissue should be pressed back upon the rectum by a stiff sound, curved in conformity with the vaginal canal, and held in the median line by the hand of an assistant. Along the edge of the sulcus thus formed as the tissues lie in contact on the vaginal plane, the line of union must be extended. As the tissues are brought together, with a tenaculum in each hand, to judge of the proper degree of tension, it is well to snip out a small portion of mucous membrane at opposite points to serve as a guide to indicate the line to be freshened. Although we have the disadvantage of an obstructed view from the flow of blood when the operation is commenced from above, this plan is attended with the least inconvenience. A limited portion of tissue only should be freshened at a time, the sutures introduced and twisted as the operation is advanced. As it is necessary that the sutures should lie perfectly flat, seize the extremity with a pair of forceps and place a tenaculum under the wire close to the vaginal surface to act as a fulcrum over which the suture is bent downward, then remove the tenaculum and make pressure about the middle, at the same time that the extremity in the grasp of the forceps is bent up in the opposite direction, cut off the end, and if the manœuvre is done properly the suture will remain in close contact with the vaginal surface. In the operation for closing the perineum, the denuded surface should be extended for half an inch or so on the recto-vaginal septum, so that a firm support to the canal shall be given. Five interrupted sutures are generally needed, three of which should include at the same time the denuded space on the rectal septum, and the other two the labia alone. I leave each suture about three inches in length, and when the operation has been completed, secure the whole number together, like the radii of an open fan, by a loop of wire around their ends. There is less risk of labial abscess or accidental irritation of any individual suture by adopting this plan.

The urine must be drawn with great care, for if a small quantity is allowed to come in contact with the surfaces brought together, or to run back into the vagina, the success of the operation will be endangered. The patient must be kept in bed with her knees tied together, and opium administered from time to time per rectum, if needed. The perineal sutures should be removed on the sixth or seventh day, for they become sources of irritation if allowed to remain longer, and the knees must be kept tied afterward, until the parts have united firmly. The sutures for the rectocele may be allowed to remain for two weeks or more, until it is safe to introduce the small size speculum under the arch of the pubes.

By the various operations described the vagina will be restored to its original size and condition, with no other change than the fold formed in front of the cervix, which even will disappear in the course of time. I wish to impress particularly this fact, that the natural capacity of the vagina is not lessened, nor can it be by these operations. The object is simply to relieve the overstretched tissues from strain, that they may retract, and this is done by taking in a plait, by which means the tissues thus turned in, if so relieved, regain their tone so far that in a few months all trace of the operation disappears. The greater proportion of the profession is impressed with the erroneous idea that the object is to *narrow* the vagina, and so the operative procedure is persistently termed. Hence the common prejudice existing calculated to defeat an unbiassed investigation. The vagina can be easily shortened by uniting denuded surfaces transverse to its axis, but to narrow the canal in its diameter, to a less degree than existed in the virgin state after puberty, is impossible by any surgical procedure, and it is never accomplished except as a result of inflammatory action. If by any chance the denuded surfaces brought together were so far apart that when approximated an undue degree of tension existed, the sutures are certain to cut out, leaving the parts in the original condition. This is due to the unyielding line formed along the vaginal sulcus on each side, from the cellular tissue connected with the pelvic fascia; it can be stretched to a certain degree, but no suture can stand more than a few days its persistent tenacity. I speak from an experience based on some sixty cases, upon which number I have operated by different methods during the past ten years. My facilities have been unusually great for watching the after effects, for in nearly every case of failure in any particular feature, I believe that sooner or later the patient has returned, giving me the opportunity of studying the cause, rectifying the difficulty, and guarding against a repetition of the same error. Having had the advantage of assisting Dr. Sims in his first cases some fifteen years ago, and afterwards watching the gradual development of every progressive stage of the operation to its present degree of perfection, I feel as if I may speak with authority.

I must apologize for having occupied so long the valuable time of the Society, but I have found it impossible, even in a most superficial manner, to condense within a reasonable space a subject of such general interest and of so extensive a bearing.

A SUCCESSFUL CASE OF TRANSFUSION.

By JOSEPH BUCHSER, M.D.,

NEW YORK.

In October, 1869, I reported in the Medical Record (vol. iv., p. 337) a successful case of transfusion. I have now the pleasure of placing another on record. The patient was a German girl, aged seventeen, who came to this country about a year ago. She was left at Castle Garden because her parents did not have enough money to pay her passage West. She engaged herself as servant in the German Hospital of this city, and was soon after transferred to the medical ward of

the institution for treatment. She was very poorly nourished. Her food while in Germany had been principally potatoes. She had never menstruated. Several members of her family had suffered like herself from epistaxis, and her mother died in an attack. At the time of her transfer to the wards she complained principally of faintness, headache, and vertigo. After a few days a slight measly eruption appeared, with slow fever. This lasted for three or four days, at the end of which time she was able to be up and about.

On the night of September 5th, she was seized with epistaxis from the left nostril. The ordinary remedies were of no avail, and Dr. Klotz, the assistant physician, arrested the hemorrhage by Belloque's tube. On the morning following, purpuric spots, varying in size from a lentil to a pea, appeared on her face, neck, and body. Her pulse was 126, temperature 38.4° C. Quinine and beef-tea were administered. On the following day her general condition remained about the same until about 4 P.M., when she vomited enormous quantities of blood. Her pulse was afterwards quickly reduced to 140, and was scarcely perceptible.

In the evening I received a note from Dr. Klotz stating that Dr. Bopp and himself thought that the only hope of the life of the patient rested in transfusion. He urged me to come at once and perform the operation.

I answered the summons at once, and soon arrived with a young friend who was in robust health.

I was surprised to find the patient in such a hopeless condition. Her face, skin, and mucous membranes were literally snow-white in appearance, and her nose, ears, hands, arms, and feet were cold. The respiration was 30, radial pulsations only at times perceptible; the carotids beat at 158 per minute; the sounds of the heart were extremely weak, and no sounds could be detected in the jugulars. She lay in an apathetic state and answered questions with difficulty.

I explained to her hurriedly that her condition was desperate, and obtained her consent to transfusion. I bound her left arm, and did the same to my young friend. Some water at 38° C. was brought, with some stimulants.

During the venesection of the young man, patient vomited enormous quantities of blood, partly fluid, partly coagulated; the floor for a considerable distance was covered with it, and still a large quantity was visible on the bed.

The venesected blood was received in a cup, beaten and defibrinated with a piece of whalebone, because there was nothing better at hand. Six or seven ounces were taken, and the whole strained through fine and soft linen. Only a small coagulum remained on the filter.

The blood, which by this proceeding had lost a good deal of its temperature, was brought in a *bain à marin* of 38–40 C., in the same way as the transfusion syringe, and a waiter was charged to keep it at this temperature.

The veins of the patient did not get prominent. I then made the bandage looser, but without result.

Only the median cephalic vein was visible, but not at all tense. I made an incision of about three-fourths of an inch long through the skin and cellular tissue. The cellular tissue of the vein was opened in both directions, and the vessel was free. A curved needle, provided with two silk-threads, was pushed under the vein, separated at a distance of about half an inch. Both threads were raised, and in the intermediate space a V-shaped incision was made with a small scissors, from which a small discharge of blood took place.

The syringe was immediately filled, but the temperature of the blood was not over 27° C. The canule was introduced in the vein—the air being before expelled—and at a distance of about 12–14‴ pushed forward, and the injection was slowly made. At least three ounces were injected. The patient stood the operation with great resignation; only once she said I hurt her, but never moved her arm.

After an injection of about two ounces she fainted away.

The face took an ominous gray color. She did not breathe at all. There was then not the slightest pulsation of the radials. The sounds of the heart were weak, but still to be heard.

No time was lost in making artificial respiration, cold water was sprinkled in her face, and her breathing returned. The breath was cold as in the collapse of cholera. At once large pearls of perspiration were visible on the cold forehead and on the face; she then began to breathe very quickly, and to rattle in the throat; radial pulsation on both sides not to be felt; carotid pulsation very weak and irregular. I felt very uneasy myself, and was prepared for the worst.

Soon the patient opened her eyes, and began to cough with great vigor; thrusting her index in the mouth and trying to take something out; she coughed a long while, and succeeded in bringing out a large piece of coagulated blood.

Patient then spoke again. She received brandy, which was thrown up, mixed with a small quantity of coagulated blood. She received also injections of brandy and beef-tea, which remained. About ten minutes after the operation very strong chills set in, which lasted five or six minutes, the whole body, and especially the extremities, entirely cold, the same as the breath.

The hands were bathed in tepid water, and thighs and feet were rubbed, and the whole body covered with several blankets. Brandy and beef-tea, which she took afterwards, were retained.

At 9.40 the operation began, and some minutes after ten it was finished. I left the patient at midnight. The pulse of the radials was only from time to time to be felt. Pulse of the carotids 138. Respiration 25. Temperature of the body very low, but was not measured. In the night from the 7th to 8th, patient slept very little. She was exceedingly thirsty.

8th. P. 150; T. 39.2°. Evening: P. 126; T. 39°.

9th. P. 120–126; resp. 26; T. 38.8.

After the operation, vomiting ceased entirely. Patient took light food and some claret, and was transferred to a private room.

Until the 15th of September, temperature was varying from 38.4–39°; pulse 114–122; resp. 22–24.

16th. Patient is coughing a good deal; expectoration frothy, mixed with some clear blood. Resp. 33; temp. 39–39.4°; pulse 124.

Examination shows pneumonia in the lower posterior lobe of the right lung. Shortly after the examination her attendant informed me with much anxiety that the patient bled again from the nose.

Cold water arrested the bleeding. She had only lost a few drops. Patient took quinine with digitalis, and the examination during several days was suspended in fear of loss of blood. She improved, however, and the appetite from day to day grew better.

Respiration was varying from the 17th till the 22d from 24–33; pulse 122; temp. 39.2°–37.8°.

After this time patient recovered very rapidly. In the middle of October she entered again on her service, and she looks now better than ever.

I hope nobody will blame me that I transfused blood of only 27° C. There was no time to be lost, and water at a higher temperature was not at hand. No doubt chills, and probably even fainting, would have been avoided by transfusion of blood of normal temperature.

The syringe which I used was made after my own direction, and is of metal, silver-plated, containing four ounces. The canule is rectangularly bent, which allows the syringe during the operation a vertical position and lateral movements, thus facilitating the introduction of the canule in the vein. In the same time it is impossible that air can be injected. I believe this syringe answers all purposes.

In conclusion, I take pleasure in acknowledging the kindness of Dr. Klotz for his assistance in the trying emergency.

WAR TYPHUS AND DYSENTERY.

By RUDOLF VIRCHOW.

(Kriegstyphus und Ruhr. Von R. Virchow. Virchow's Archiv. Bd. LII. S. 1. January 16, 1871.)

The January number of Virchow's Archiv. contains an essay by the editor, on the fever and dysentery of the German army in France last fall and winter. Aside from the fact that everything relating to this wonderful campaign is just now of interest, this paper contains so much matter for consideration that we have thought a rather full abstract of the contents would be acceptable.

The author begins by relating that at the commencement of the war a series of great and apparently decisive battles rapidly carried the victorious army into the interior of the enemy's country. Numerous dead and wounded were left behind, but the general health of the invaders remained good, until siege operations succeeded the battles in the open fields, and great numbers of men were shut up in Metz and Paris, by vast investing armies. Then pestilence broke out. First around Metz, where dysentery soon appeared, followed by typhus. The improvised hospitals in schools and halls, as well as the newly-built barracks, became encumbered with the sick, and endless railroad trains carried them to the rear. By the middle of October fifty thousand had been sent. The besieged, too, suffered greatly. When the fortress surrendered, twenty-five thousand sick and wounded were found.

The news from Paris at the time of writing was less detailed, but dysentery and typhus had already appeared.

These two chief war diseases, therefore, demand attention at the present time; and first, of typhus. Spotted typhus (the typhus of English and American writers) must be distinguished from abdominal typhus (the typhoid fever of English and American writers). The Napoleonic wars were followed by terrible epidemics of spotted typhus, but two generations sufficed to throw the old knowledge into the background; and although in France, and especially in England and Ireland, repeated sad experiences maintained a knowledge of the distinction between the two forms, in Germany it became the general practice to call abdominal typhus shortly typhus, and to regard belief in any other form as a mere superstition. The hunger typhus in Upper Silesia first checked this error, the characteristic lesions of abdominal typhus being absent, and the Crimean war produced a general reaction of opinion. It was then clearly shown that petechial or spotted typhus was not merely the hunger epidemic, but the true prototype of field and camp typhus. Hence, when news of typhus first came from Metz, it was natural to fear the disease might be of this formidably contagious character.

But although on former occasions war typhus has generally been spotted typhus, yet this has been replaced by the abdominal form in certain epidemics, as for example in that of Mayence, 1813–14. In a little pamphlet, on his recent journey to Metz with a sanitary train of the Berlin Hülfsverein, Virchow stated abdominal typhus to be the prevailing form there. Later observations, especially since the surrender of Metz, have confirmed this opinion. At Giessen, it is true, a few cases supposed to be spotted typhus were reported among the female nurses; but abdominal typhus shows so many varieties, that we must be careful in judging with regard to single cases; and "especially the admixture of the malarial element, which has shown itself actively during this war by numerous cases of intermittent fever, confuses the picture of the so-called normal course of typhus in a manner which is sometimes quite deceptive."

Considerable confusion of ideas exists in certain quarters with regard to the eruption of spotted typhus. The name petechial typhus has led some to regard "true petechiæ" as the characteristic eruption. This word petechia, as used at present, has no longer the same meaning as when first introduced into scientific terminology by Fracastoro. The comparison with flea-bites, which gave origin to the name, readily led to confusion of ideas, for a recent flea-bite, in the midst of the little red spot due to capillary hyperæmia, presents a small, dark, central area of hemorrhage around the point of puncture. The first disappears after a few hours, the latter remains longer; so that a recent flea-bite resembles the spots of roseola, and this was the sense in which the name petechia was originally employed; an older flea-bite resembles the hemorrhagic spots called petechiæ in modern times. These resemblances are so great that they may even complicate diagnosis; though the fact that roseola spots have not the central dot of hemorrhage seen in recent flea-bites, and that older ones are smaller and have more abrupt edges than is usual with petechiæ, will generally enable them to be distinguished.

During the seventeenth and eighteenth centuries the notion that hemorrhagic spots were characteristic of typhus gained ground. They were supposed to be the expression of a putrid condition of the blood, and the name putrid fever was employed to designate all the forms of typhus. But in fact these hemorrhagic spots occur not only in both spotted and abdominal typhus, but also in numerous other diseases, and there is nothing either in their character or the time of their appearance which is significant for diagnosis.

The eruption of merely hyperæmic spots has much more diagnostic value. These may be scattered and isolated, in the form of roseola, or more numerous, larger and closer together, resembling measles, with which they may even be confounded. Virchow described this eruption in connection with the epidemic in Upper Silesia (Virchow's Archiv., Vol. II., p. 187; Vol. III., p. 165), but protests, that with all his opportunities for the observation of fevers, he is unable to admit any such constant differences between the roseolar eruption of abdominal typhus and that of spotted typhus, as are laid down by many writers.

"In both cases we have essentially a roseolar exanthem, consisting of multiple spots of capillary hyperæmia in the skin, and not limited to the hair bulbs

At first the redness disappears entirely on pressure, but at a later period the color becomes darker, probably through a partial escape of the hæmatin of the blood-globules, and its imbibition by the tissues; it then no longer disappears under the pressure of the finger. In spotted typhus the exanthem is well marked and wide-spread. In connection with the diagnosis, I would expressly remark that in our recent epidemics I have often seen it on the face, even on the forehead, as well as on the palms of the hands and the soles of the feet, so that a limitation of the eruption to the trunk and the adjoining portions of the extremities cannot be regarded as a constant diagnostic mark from measles."

"In abdominal typhus the exanthem is usually less marked, the spots are scattered, and limited to certain regions, especially the upper portion of the abdomen and the lower part of the chest. But there are also unmistakable cases of abdominal typhus in which the exanthem is much more decided; the single spots are then larger, more strongly colored, and spread more widely over the body. If we consider, finally, that it not unfrequently happens that in spotted typhus the exanthem is slight, and the spots scattered, it will be understood, in the first place, that both abdominal typhus and spotted typhus are alike entitled to be considered as exanthematous diseases; and in the second place, it will be seen that the exanthem alone, without taking the other symptoms into consideration, is not decisive, and cannot be strictly regarded as a pathognomonic symptom."

Virchow next mentions that some cases of recurrent fever have been reported among the German troops in France; states that though he has seen petechiæ, he has never seen a roseolar or measle-like eruption in this disease; and discusses at some length the question of the occurrence of recurrent fever during the hunger epidemic of 1847–8 in Upper Silesia.

He then proceeds to suggest, that as the pathological changes in the intestine and the mesenteric glands, which are characteristic of abdominal typhus, can only be distinguished with certainty after death, autopsies are always of great importance in deciding the character of any epidemic. This has been done during the present war in the cases of a number of soldiers who died after their return to Berlin. "Extensive medullary infiltration of the lymphatic apparatus of the ileum, and to some extent of the colon, ulcers, and cicatrices, were found. We have during life no indisputable signs of these alterations. The diarrhœa, and the development of gas in the intestines, are certainly noteworthy, especially when fluid and gas occur at the point chiefly affected, the lower ileum and the cœcum, developing the well known ileo-cæcal gurgling. But this gurgling is not specific, and may occur in the same way in spotted typhus."

It is his opinion that the notion that the diarrhœa of abdominal typhus is chiefly dependent on the formation of ulcers is erroneous. Both in this disease and in tubercular ulceration of the intestine, the diarrhœa is dependent upon the co-existent intestinal catarrh, traces of which are found in the autopsies far beyond the portions of the intestines which are ulcerated, and no connection can be shown to exist between the severity of the diarrhœa and the extent of the ulceration. In abdominal typhus, then, we must consider two independent affections. "The catarrhal affection of the mucous membrane, which often involves the whole small intestine as far as the stomach, and the progressive alteration of the lymphatic apparatus, which involves the solitary follicles and the patches of Peyer, as well as the mesenteric glands."

In the spotted typhus of Upper Silesia, Virchow observed in some cases severe intestinal catarrh attended by simple swelling of the follicles. He has also observed diarrhœas of great severity in the recent epidemics of spotted typhus in Berlin. In some of these cases the discharges were found to contain large quantities of well-preserved intestinal epithelium adhering in shreds, just as in cholera. In the cholera epidemic of 1866, the presence of epithelial cells in the discharges was questioned. Virchow, however, has seen them in great abundance in cholera (Medicinische Reform, 1848, p. 28), and explains their absence in many cases by supposing them to be decomposed in the large intestine, a circumstance which would be still more apt to occur in either abdominal or spotted typhus.

But not merely is it important to separate the question of the diarrhœa from that of ulceration; the ulceration itself is not to be looked upon as an invariable concomitant of abdominal typhus. Virchow mentioned as early as 1848 (Virchow's Archiv., Vol. II., p. 244), that "a resorption of the exudate in the stage of medullary infiltration is possible." He is now disposed to believe that resolution is the normal termination of the affection of the intestinal follicles in abdominal typhus, and that it is an error to suppose that ulceration is of regular or necessary occurrence.

Not as he thought in 1848 that we have to do with a simple exudation; he has since shown that the medullary infiltration of Peyer's patches, and the solitary follicles, consists from the first in an increasing number of lymph cells quite like the normal gland cells of the lymphatic apparatus. This accumulation of elements takes place at first in the follicles, afterwards in the tissues which surround them. The alteration is therefore quite similar to that which occurs in the mesenteric glands, where it has long been known that resolution takes place. The precise mechanism of the process of resolution is not fully made out. "Certainly, fatty metamorphosis may be observed, but it seldom obtains a considerable height, and it is therefore questionable, whether besides this change, or even without its occurrence, the swelling is not simply relieved by one cell after another being carried off in the lymph stream." But whatever the details, the process occurs in the glands of Peyer and the solitary follicles, as well as in the mesenteric glands.

If resolution does not take place, the medullary infiltration passes into the cheesy metamorphosis. The product is the well-known typhus slough, not an ulcer; the ulcer only originates on the separation of the slough. The typhus slough is originally dry, firm, and of a yellowish-white color; but it rapidly alters, partly by decomposition, partly by the action of the intestinal contents. Bile pigment may tinge it yellowish or brownish; iron given as medicine may stain it black.

In the mesenteric glands the formation of the typhus slough is rarer. When it occurs, the cheesy mass remains longer unaltered than in the intestinal follicles. The condition, in fact, resembles what may be seen in scrofulous or tubercular lymphatic glands. The whole gland does not usually become cheesy, and even in the more severe cases the process is usually limited to a few glands near the junction of the ilium with the cœcum. After a time suppuration occurs around the slough, and a furuncle-like gland-abscess results, which may open into an adjacent knuckle of intestine or may become encapsuled.

In the case of the intestinal follicles, the slough may be as extensive as the original medullary swelling, whether in the solitary glands or the patches of Peyer; but in the latter case the ulcers are usually smaller than the patch, so that there may only be one or several

small ulcers in a single patch. In a general way it may be said, that the number and size of the patches in which the medullary swelling occurs, bears no proportion to the number and size of the ulcers. The ulcers are most frequent in the patches of the lower part of the ilium; but even these sometimes escape, and higher up the intestine this is still more frequent. If this is true even in fatal cases, may we not infer that in the non-fatal cases, especially in those in which speedy recovery takes place, resolution of all the patches frequently happens? Is it wise to assume that ulceration followed by cicatrization is the usual mode of cure? Autopsies of the so-called walking cases show that it would not always be safe to assume that no ulceration has taken place because the case appears to be mild; but is it not probable that the resolution which we know occurs in some patches in almost every case, more frequently occurs in all than has been hitherto believed?

At the seat of war there has been repeated mention of transitions between abdominal typhus and dysentery. Such expressions originate in a misunderstanding. We must not confound the names of diseases based on a clinical experience with those which are founded on pathological anatomy. Dysentery, like apoplexy and pertussis, is a clinical designation. It implies discharges from the bowels accompanied by tenesmus. It has been referred to inflammation of colon and rectum, but sometimes a large part of the ileum is involved also, and it is not every colitis or proctitis that is dysenteric.

Schönlein grouped dysentery with angina gangrenosa, croup, hospital gangrene, and septic metritis. Rokitansky went so far as to speak of a puerperal uterine dysentery. Here we see anatomical notions confusing the clinical. Rokitansky only meant that in these cases the lesion of the mucous membrane of the uterus was similar to that observed in the dysenteric intestine.

Virchow taught a long time ago that the intestinal lesion in dysentery was in many cases similar to that which Bretonneau called diphtheritis when the mucous membrane of the throat was affected, and that a similar process occurred also in cholera, as well as in the enteritis which sets in above intestinal strictures. Since then many speak as if every dysentery were due to diphtheritic inflammation—as if diphtheritis of the colon or rectum was the correct anatomical expression for what the clinicists call dysentery. He protests that he feels free from the blame of having originated this error. In fact, he began his account of dysentery by stating (Virchow's Archiv., Vol. V., p. 348) that a catarrhal dysentery may, under certain influences, be aggravated into a diphtheritic dysentery. For simple catarrhal inflammation of the mucous membrane, often of great extent, occurs in dysentery as well as in typhus. In typhus it affects chiefly the small, in dysentery the large intestine.

The discharges produced by the dysenteric catarrh contain commonly, besides mere fluid matter, those thick glairy masses called mucous when they are transparent, croupous or fibrinous when they are opaque. This is the so-called "white dysentery;" in the "red dysentery" the discharges only differ by containing more or less blood. Both kinds of stools may occur without any ulceration or erosion of the mucous membrane, and the hemorrhage may be simply due to the rupture of congested capillary vessels during the spasmodic contractions of tenesmus. Hence, the amount of blood discharged is often closely related to the degree of tenesmus.

The subacute and chronic forms of catarrhal dysentery readily become complicated with follicular ulceration of the colon. Bamberger is right in distinguishing this form of ulcerative colitis from diphtheritic inflammation. But he shares an old error of the School of Prague when he speaks of the swollen follicles as exhibiting at times clear transparent contents, for such cysts, which belong only to the later stages of chronic dysentery, originate in the coalescence of the follicles of Liebekühn. They are described in Virchow's book on tumors (Vol. I., p. 243).

The primary lesion in the follicular ulceration of dysentery is the conversion of the solitary follicles into little abscesses; these on their rupture leave small cavities which manifest a tendency to burrow, and thus to coalesce, forming often large ulcers, and sometimes causing the separation of portions of mucous membrane of considerable dimensions.

Bamberger adheres to another error of the School of Prague. He regards those little lumps in the stools, which resemble cooked sago or frogs'-eggs, as the secretion of the diseased solitary follicles. Virchow, however, has shown (Virchow's Archiv., Vol. V., p. 329) that the iodine reaction generally demonstrates these lumps to consist of undigested starchy matters. Where they are truly mucous masses, however, they must proceed from the glands of Lieberkühn, not from the solitary follicles.

It must be added that follicular ulceration is not peculiar to dysentery; it occurs also in other forms of intestinal catarrh, as, for example, in that of phthisis.

We have next to consider the diphtheritic process already mentioned as occurring in dysentery. The pseudo-membranous patches are grayish-white, or gray if they occur on portions of the mucous membrane affected simply by catarrhal inflammation. If they occur on portions of mucous membrane into which hæmorrhagic effusions have taken place they are brownish-red, blackish, or greenish-black. In either case they may be stained variously by the intestinal contents.

The diphtheritic layer may be superficial, or may extend deeply into the mucous membrane. Its depth will determine the depth of the subsequent ulcer. Ulceration is the constant result, the diphtheritic layer being separated as a slough by a suppurative process. These ulcers are unlike the follicular ulcers of catarrhal dysentery, and they do not burrow. Yet it is to be noted that the diphtheritic process sometimes involves the follicles, producing follicular ulcers, along with the diphtheritic destruction of tissue.

From the foregoing sketch it will be understood that we cannot substitute the anatomical designations of either of the above lesions for the clinical term dysentery, which is based on symptoms and etiology, and embraces both the catarrhal and the diphtheritic form. The former is the less severe variety, and it is probable that the diphtheritic process only sets in in portions of the mucous membrane which are already affected by catarrh. Moreover, simple catarrhal inflammation of some portion of the intestine always coexists with diphtheritic alteration of others. This is shown by the fact that the discharges from the bowels continue, for the diphtheritic patches secrete nothing, and only discharge a little pus after the sloughs begin to separate.

It will now be understood that there is no reason why abdominal typhus and dysentery may not coexist in the same person; the diphtheritic form of dysentery is most apt to occur in such cases, just as diphtheritic sore-throat sometimes sets in during abdominal typhus. In fact, all three processes may coexist. Usually the dysenteric process sets in during the latter stages of abdominal typhus. Such cases are, however, comparatively rare, and Virchow declares he does not know of a single instance in which abdominal typhus

has developed itself in a patient already suffering with dysentery.

He next proceeds to compare what he has learned of the fever and dysentery of the German armies in France with what occurred during the late war in America.

"It is worth while to state, in the interests of the comparative pathology of war epidemics, that the conditions observed in the present war approximate in many particulars those of the late American war. There also spotted typhus was almost never observed, and the reporter of the medical staff, Woodward, was even inclined to refer the few cases reported under this designation to inaccurate diagnosis. (Outlines of the Chief Camp Diseases of the United States Armies, Philadelphia, 1863, p. 153.) In his later report, which forms a part of the contents of the renowned Circular No. 6 of the Surgeon-General's Office (p. 113), he admits a limited number of cases of true typhus, especially among prisoners of war. This number, however, was so small that Bartholow, who contributed the report on camp fevers in the medical section of the Sanitary Memoirs of the war of the rebellion, collected by the United States Sanitary Commission, expresses his opinion that it is questionable whether mere over-crowding and insufficient ventilation are sufficient in themselves to generate typhus. He insists particularly upon the absence of typhus in the notorious Andersonville prison. For the rest, cases of 'spotted fever' occurred, it is true, in many regions in America, but the report of Hunt (Contributions, p. 390) states that those were really cases of cerebro-spinal meningitis." While spotted typhus was rare, abdominal typhus and dysentery were wide-spread in the American army. In Circular No. 6 the number of cases of abdominal typhus for the first year of the "war is reported as 21,977, with 5,608 deaths; for the second year, 31,374 cases and 10,467 deaths; the total being 53,351 cases and 16,075 deaths. During the first year 215,214 cases of acute and chronic diarrhœa and dysentery were reported, with 1,194 deaths. Since the limits between diarrhœa and dysentery cannot be very sharply drawn in medical reports made often from different points of view, and since it appears from the statements of American physicians, and particularly from the pathologico-anatomical reports of Woodward, that a large part of the cases of so-called diarrhœa were really dysenteries, we may assume that in spite of the enormous number of diarrhœa cases reported, dysentery was nevertheless an exceedingly prevalent affection. During the second year of the war the number of cases of diarrhœa and dysentery amounted to 510,461, with 10,366 deaths. The total for the two years was therefore 725,675 cases and 11,560 deaths. More than one-fourth of all the cases of sickness belonged to this category. On the other hand the mortality from abdominal typhus was absolutely greater, although the number of cases was about fourteen times less."

"The Secession war also showed a similarity to that of Germany with France, in the gradual manner in which abdominal typhus increased in frequency and severity. It is important to the future solution of etiological questions to draw the attention of physicians now to this agreement."

Next, with regard to the etiology of the diseases under consideration. Hippocrates has mentioned the prevalence of dysenteric diarrhœa and protracted quartan fevers during the summer. Observers of every age, especially in hot countries, have laid stress on the connection of dysentery and diarrhœa with malaria.

"This has perhaps nowhere occurred to such an extent as in North America, where the medical historian of the war has even gone further, and established a special group of fevers, first described by Woodward (Outlines, p. 74) under the name of typho-malarial fever. But it seems to me that we should be very cautious in this direction. Certainly malaria, as I formerly mentioned, exercises a predisposing influence on the development of dysentery, since nearly all febrile conditions occurring in the warm or mild seasons, in swampy regions, or during the prevalence of intermittents, are complicated with "catarrhal affections of the mucous membrane of the intestines. But the determining must be distinguished from the predisposing influence. That mere exhalations from the soil—and as such malaria must be considered—are capable of generating dysentery or typhoid disease, is exceedingly questionable."—Virchow's Archiv., Vol. V., S. 354).

More importance is attached by Virchow to the influence of impure drinking water in producing these disorders. His opinions as to its relations to typhus are given in a recent paper (Virchow's Archiv., Vol. XLV., p. 294). With regard to dysentery, too, it is important. In 1770, a hundred years ago, an epidemic of dysentery occurred in a regiment stationed at Metz, which was clearly traced to the use of water from wells contaminated by adjacent latrines (Guilhaumon. La guerre et les épidémies, p. 64). The Romans supplied Metz with pure water from a distance, by means of a great aqueduct, the ruins of which are still seen. A new aqueduct performing the same functions was interrupted during the recent siege by the German troops. The notion that the soil and water around Metz are favorable to the development of fever and dysentery is not without support from history.

Just before Metz was taken from Germany, in 1552, the Emperor Charles V. besieged the place with 80,000 men. During the months of November and December a third of his army melted away, chiefly from dysentery, scurvy, hospital gangrene, and camp fever. In the city things grew so bad, that it was commonly supposed that the surgeons had poisoned the bandages, till Ambrose Paré, who visited both the imperial camp and the city, dissipated the suspicion. After the siege was raised, a terrible epidemic of typhus broke out in Metz, and devastated the already desolated valley of the Moselle, from Pont-à-Mousson to Thionville (Guilhaumon, loc. cit., p. 36).

Again, after the battle of Valmy, September 20, 1792, when the allied German armies retreated before the French, a very contagious epidemic of dysentery broke out among them, and involved also the French army and population. It was known as the "Courrée Prussienne." The retreat commenced in Champagne, and lasted twenty-two days. The first cases, however, filled the hospitals of Verdun and Longwy, not those of Metz. Typhus followed, but appeared first in the Department of the Maas, and the districts of the Moselle, the Meurthe, and the Ardennes; everywhere the hospitals were crowded. In the sequel, typhus prevailed for two years in Metz, 64,413 men being received into hospital there; 4,870 died.

But these accounts hardly furnish the details for an exact investigation into the causes of the pestilence. They show, however, that at least no one place can be held responsible for their origin, and this is doubtless one reason why some investigators give prominence rather to the supposed influence of season.

"Nearly all the epidemics of typhus in or near Metz commenced late in the summer or in the fall. Woodward (Circular No. 6, p. 112) mentions the

'autumnal' character of the North American camp fever, as a corroboration of his view of the prevalence of a malarial element among the causes; and diarrhœa and dysentery were so much more frequent in the Union armies during the summer and autumn, that the definite influence of the time of year seemed indisputable. (Circular No. 6, p. 120.) In the present campaign the appearance of dysentery was not confined to any special malarial region. The first news of it came from Saarbrück. The hospitals of Saar-Louis and along the line of railroad from Remilly soon filled, and the army was already suffering from dysentery when it came before Metz. After the disease made its appearance, contagion may have played a considerable part; but its first appearance must be referred to other circumstances. Nothing, then, is left, but to admit the effect of injurious alimentary and thermal conditions."

Virchow then proceeds to sketch the irregular and often improper food and drink of the troops, their exposure to cold nights after hot days, to inclement weather without shelter, repose on the damp ground, and the like. But he suggests, that besides all such causes, some local influence acting on particular parts of the intestines appears probable, and thinks this may perhaps be found in constipation with fœcal accumulations. He refers to the local diphtheritic processes, and the deep and numerous follicular ulcers often seen just above strictures of the intestines. Perhaps the ammonia evolved by the decomposition of the fœcal matters is the immediate irritant. (See Virchow's Archiv., Vol. V., p. 356). In Bright's disease, where considerable quantities of urea occur in the intestinal secretions, and rapidly decompose, extensive intestinal diphtheritis is common. Ammoniacal decomposition of the urine is known to produce catarrh of the bladder, ureters and pelves of the kidneys. In vesico-vaginal fistula diphtheritis of the vagina is common.

He does not insist upon this view to the exclusion of all co-operating influences; malaria, bad water, the cachectic condition which the Americans name "the scorbutic taint," doubtless all exert their influence; but he thinks it improbable that true dysentery ever arises, unless besides these either contagion or fœcal retention exists as the immediate cause.

In abdominal typhus, contagion is probably of less significance, but its possibility cannot be excluded. The contamination of the soil by decomposing animal matters, and the emanation thence of a peculiar poison acting either through the air or the drinking water, is generally regarded as the cause. Over-crowding of habitations, deficient nourishment, season, place, etc., may co-operate, but are probably of secondary importance, though in a general way whatever can evoke an intestinal catarrh may act as an accessory cause.

"The casual momenta are nowhere more readily brought together than in a besieging army, especially where the siege is of long duration. The scanty and irregular nourishment, the want of shelter, the exhausting service—above all, the uncleanliness which necessarily increases from week to week, affect the besiegers much more severely than they do the besieged." It is not surprising, then, that this was the case at Metz in 1552 as well as in 1870. But in protracted sieges the condition of the besieged becomes the worse in the sequel, especially if the place is over-crowded, or occupies an unhealthy site. Under such circumstances devastating pestilences may break out, as happened at Dantzic, at Torgau, and at Saragossa.

So little is known positively about the causes of abdominal typhus, that our prophylaxis is uncertain. Among the personnel of three of the sanitary trains from Berlin to Metz, of which only Virchow knew the particulars, cases of abdominal typhus of a severe form occurred. The circumstances are recounted in detail, and the conclusion drawn that they warrant the inference of contagion.

The influence of contagion in the production of spotted typhus and of recurrent fever is clearer. Every time these diseases have become epidemic in Berlin, of late years, they appear to have been imported from the Provinces, and the circumstances have not been such as to show clearly the influence of either famine or over-crowding, while they have rendered contagion highly probable. It is true that typhus has often occurred in prisons and fortresses; but the case of Andersonville shows that we must not reason too hastily with regard to such instances. Moreover, in the majority of those cases in which war typhus has occurred in camps and fortresses on the continent of Europe, it can be traced directly to contagion, and over-crowding has served rather to favor the spread of the poison than to originate it.

It can no longer be disputed, at the present time, that the Sclavonic countries are the ever overflowing source of spotted typhus, as they are also of the rinderpest. This is the secret of the supposed intimate connection between the two diseases. The present war has disabused our minds with regard to such a supposition. The rinderpest was carried everywhere by the cattle brought for the army from Podolia and Galicia; it spread through Pomerania and Mecklenburg, through Mark and Saxony, until it reached France. Yet there has been no appreciable number of cases of spotted typhus. On the other hand, in modern times spotted typhus has followed every army which has moved out of the east into Central Europe. The severest epidemic which has recently visited Germany was brought with the French army in its retreat from Russia; the next pestilence of the sort which attacked a French army occurred, when on the soil of the Crimea they came into new contact with Sclavonic troops. The hunger pestilence of Upper Silesia in 1848, and of East Prussia in 1868, stood related in many respects to Sclavonic populations. Even in our province of Posen, there have been since 1828 a number of small epidemics of recurrent fever and spotted typhus. "Poland appears to have as dangerous a significance for us as Ireland for Great Britain; and much as I was formerly opposed to admitting contagion as the common means of the development of typhus-epidemics, I must confess that, like so many earlier observers, continued experience impels me more and more to go over to the camp of the contagionists."

The paper closes with the hope that the war may find scientific and well-instructed historians. "Every war is a heavy evil, and the real gain lies often enough in a very different direction from material acquisitions."

Progress of Medical Science.

The Introduction of Sutures into the Uterus after Cæsarian Section.—In an interesting article on this subject, by Charles F. Rodenstein, M.D., Westchester, N. Y. (*Am. Journ. of Obstetrics*), the subjoined conclusions may be legitimately drawn:

1st. The introduction of sutures is positively indicated when the uterine wound is not closed by the contractions of the womb.

2d. The closing of the uterine wound by sutures does not interfere with the success of the Cæsarian section.

3d. The application of uterine sutures after every Cæsarian section will probably diminish the rate of mortality attending that operation.

The Halo Round the Macula Lutea.—At the last meeting of the New York Ophthalmological Society, Dr. E. G. Loring read a paper on the nature of the bright circular ring or halo seen with the ophthalmoscope round the Macula Lutea, in the normal eye. The views heretofore given by Liebreich, Schweigger, Schirmir, and many others, have never been considered satisfactory, or sufficient in themselves to account for this peculiar phenomenon. Dr. Loring's explanation of it was based on the anatomical conditions of the part, and principally from the fact that the region of the Macula, from the absence of or great reduction in thickness of all the layers except the cones, represents a shallow cup or vase-like depression, the rim of which presents a convex, and the bowl a concave, surface.

The bright ring in question was shown to be the product of reflection and refraction of the rays of light striking upon this curved rim. The glittering stripes sometimes seen along the vessels and in other parts of the retina were attributed to the same cause, mainly a difference in level and curvature.

These views were illustrated by diagrams on the board, and practically demonstrated by a camera representing a pair of normal eyes.

A Small Ivory Exostosis.—Mr. Spencer Watson, of London (*British Med. Journal*), lately exhibited at the Pathological Society of London, a small ivory exostosis, which he had removed from the outer side of the left eye-ball. It had all the microscopical characters of very dense bone. No other similar case had, he believed, been recorded.

Ought Consumptives to Marry?—Dr. Robert Barnes, in his Gynæcological Notes (*British Medical Journal*), expresses a very decided opinion on this subject. He believes that when consumption is either latent, stationary, or slowly progressing, marriage very commonly precipitates the fatal issue of the disease both in men and women. He says there never was a greater fallacy than that which affirms that pregnancy is antagonistic to phthisis; therefore, although consumptives seem at least as apt in procreation as other people, he believes that they ought not to marry, especially since their children almost invariably inherit the tubercular diathesis, and repeat the sad history of their parents, scattering mental and physical distress around them.

Calabar Bean in Tetanus.—Dr. Campbell Black, of Glasgow, has treated a case of tetanus by Calabar bean, and is convinced that the physiological action of that drug places its use in tetanus beyond the pale of empiricism.

Diabetes Mellitus.—Prof. Alnaldo Cantani, of Naples (*British Medical Journal*), is firmly convinced that in diabetes it is not a question of an increased production of sugar, but, on the contrary, it is one of deficient combustion, owing to there not having taken place the progressive transformation into lactic acid or fats, of the sugar which has been eaten, or formed from amylaceous substances. He suspects, therefore, that the diabetic sugar is not true glucose, although it presents the same chemical reactions, but that it is a modification of normal glucose less easy to be oxidized; whence he calls it *paraglucose*.

Another important fact consists in his observations on the low temperature of diabetic patients, and the generally small number of their respiratory movements. Prof. Cantani has demonstrated from many cases that the temperature of diabetic patients oscillates regularly between 35° and 36° Celsius (95° to 96.8° Fahr.) and sometimes descends below 35° when they suffer from tuberculosis.

The professor administers lactic acid, and limits his patients to an exclusively meat diet in diabetes. The lactic acid appears to take the place of the sugar as a combustible, by representing in itself that chemical transformation of the saccharines, which, having passed over the condition of glucose, are decomposable by ulterior oxidation into carbonic acid and water. The meat diet has the object of reducing to a minimum the introduction of saccharine and sugar-producing substances, and of thus leaving to repose the liver, whose affection, certainly curable in the beginning, is the cause of that alteration in the saccharines which renders them incombustible. Of lactic acid, he gives every day from 5 to 10 *grammes*, diluted in from 200 to 300 *grammes* (75 to 150 grains in from 8 to 10 fluid ounces of plain water), and without any corrective.

Ozone developed by Flowers.—Prof. Mantegazza reports in the Proceedings of the Institute of Lombardy that the essences of mint, cloves, lavender, bergamot, anise, laurel, &c., in contact with atmospheric oxygen in the sunlight, develop a very large quantity of ozone, equal, if not superior, in amount to that produced by phosphorus, by electricity, and by the decomposition of permanganate of potash.

The flowers of the narcissus, hyacinth, mignonette, heliotrope, lily of the valley, &c., develop ozone in closed vessels. Flowers destitute of perfume do not develop it, and those which have but slight perfume develop it only in small quantities. As a corollary from these facts, the professor recommends the use of flowers in marshy districts and in places affected with animal emanations, as the powerful oxidizing influence of ozone may destroy them. The inhabitants of such regions should surround their houses with beds of the most odorous flowers. In support of these views, Dr. Caro, of this city, states that in Northern Italy it is common to plant the sunflower around houses as a protection against malaria, and that in the province of Romagna, where the chamomile is very extensively cultivated for the sake of its flowers, the intermittent and remittent fevers disappear during the season when it is in blossom.

Vaccination.—Dr. Robert Ellis, of London, recommends vaccination by means of vesicating liquid. Three little spots, the size of a pin's head, are touched with the blistering fluid, and the next day the lymph is placed beneath the cuticle thus raised. It is claimed that only the minute particles of true virus can obtain access to the system in vaccination by this means, so that greater safety and greater certainty of success are insured at the same time.

In the London Hospital very satisfactory results have been obtained from vaccination with lymph diluted with pure glycerine, in the proportion of twenty drops of glycerine to one capillary tube of lymph.

Reduction of an Ancient Dislocation of the Shoulder by Prolonged Extension and Manipulation.—M. A. McClelland, M.D., of Knoxville, Ill., writes:—

Pierre Lindeau, Swede, laborer, aged 52 years, struck on the right shoulder, while the arm was in an extended position above his head, by a heavy pole, which dislocated humerus downward. Accident occurred September 4, 1870. Was seen by a doctor within five hours, who pronounced the injury a contusion and prescribed a liniment. No other doctor saw him till November 9. The injury was then diagnosed

by non-professionals as a dislocation, and a homœopath of a neighboring city endeavored to reduce the humerus with heel in axilla. After making two efforts as forcibly as he dared, he advised that patient be sent to Chicago. Was called to see patient the next day. Found the dislocation to be at present sub-coracoid. On the next day, it being the seventieth of the dislocation, assisted by four able-bodied men, I attempted the reduction. Feeling that it would require a protracted effort, and not wishing to keep patient for so long a time under the influence of an anæsthetic, I thought I would endeavor to relax muscles and mitigate pain somewhat, and also gain a more decided result from the anæsthetic, when I should use it, and I injected into the right fore-arm one-eighth grain morphine. Two pieces of cotton roller were laid along radial and ulnar sides of humerus, and secured immediately above the condyles by a roller, the ends of which were sewn rather than pinned. The upper extremities of the strips were then brought down and sewed to the opposite ends, thus forming two loops, through which was passed the corner of a sheet, which, being tied to the diagonal corner, made a large loop to pass over the shoulder, by which to make extension. A broad bandage was passed around the body of the patient, under the axilla, and attached to an iron pillar at his left side. The patient being seated in a chair, an assistant was directed to sit on the opposite side of the pillar, and embracing it, fix the scapula by hooking over the acromion with the clasped hands. Extension was then made very gradually, at almost a right angle with the body. At the end of five minutes the extending force was increased and the arm carried a little higher. For the next fifteen minutes the extension was gradually increased, the arm being carried higher and somewhat more across the chest. The pain becoming severe, the patient was laid on a comforter on the floor, and while the assistants continued the extension and counter-extension, I administered ether. This acting very slowly, I used about half an ounce of chloroform. Stertor coming on, I ceased the administration of the anæsthetic and took charge of the extension. Drawing my boots, I fixed the scapula more firmly with my right foot against the anterior border of scapula, and the left against the acromion. Shifting my seat more and more towards the head, I finally made the extension directly upward, making counter-extension with my left foot pressing firmly on top of scapula. The lower part of scapula was partially fixed by the foot of an assistant and the broad bandage around the body. Extension was continued in this direction, and gradually increased for thirty minutes. The fore-arm and hand becoming highly discolored and very cold, the roller above condyles having cut off the circulation, I loosed the roller, making such extension as I could with my left hand. Bending the fore-arm to a right angle with the arm, I carried both upward and inward toward the head; then gently rotating the arm and carrying it downward and across the chest, we had the satisfaction of hearing, upon pushing slightly upward as the elbow passed below the level of the shoulder, an audible snap as the head slipped into place. Time employed in the extension, one hour and thirty-five minutes. The lesson to be drawn is the necessity of making our extension very gradual, in breaking up the adhesions in ancient dislocations. I had the pleasure of exhibiting the shoulder, after all swelling had subsided, to my friends Drs. Reece and Hinsley, both of whom were well satisfied that the shoulder was properly reduced. Our homœopathic contemporary claims that the shoulder is in same condition as when it left his office.

Gonorrhœa Managed by Tannin and Glycerine.—Dr. Schuster, of Aix-la-Chapelle (*Medical and Surgical Reporter*), in the treatment of gonorrhœa, in all its stages, uses rods three or four inches long, consisting of tannin, two parts, powdered opium, 0.12 part, with a sufficiency of glycerine. These are soft in the summer, but become very brittle in the winter. The rod, moistened with hot water, is introduced into the urethra, and a piece about an inch and a half long is left in; it melts down and forms a whitish mass with the mucous secretion from the canal. The rod may, after remaining five to ten minutes, either be removed by the finger or be expelled by the stream of urine. The remedy is applied twice or thrice daily. A cure follows, he says, in a period varying from seven to eighteen days.

Gun-shot Wounds.—Dr. Wm. MacCormac, Belfast (*British Medical Journal*), thinks of no rule in military practice can there be less doubt than that immediate amputation should always be practised in gun-shot wounds of the knee clearly implicating the articulation. When amputation has, however, been delayed through any cause, the efforts of Nature should generally be allowed free scope, since secondary amputations of the thigh are exceedingly fatal. Cases where the knee-joint is really opened require to be discriminated from those in which a ball, deflected by the strong fibrous capsule of the articulation, passes more or less completely round it without penetration. Seventeen such instances occurred at Balan, in the late foreign war, one only of which proved fatal.

Of twenty cases of gun-shot fracture of the femur, twelve died. Those which were not amputated were treated by the long splint to steady the limb, and extension by means of a weight attached to the foot; the weight of the body, and its friction against the bed, affording sufficient counter-extending power. In a few cases there ensued very considerable deformity and shortening; but in some, on the other hand, the result was as good as good could be.

Syphilitic Renal Dropsy.—Dr. S. Messenger Bradley, of Manchester (*British Med. Journal*), refers to a case of renal dropsy occurring in a child four months old, covered with syphilitic psoriasis. Hydrargyrum cum cretâ was given in two-grains doses twice daily, and a little unguentum hydrargyri rubbed into the abdomen each night, and at the end of three weeks the albumen in the urine and eruption on the skin had entirely disappeared, the cellular tissue was free from dropsy, and the microscope failed to reveal the presence of any abnormal element in the urine.

The deduction which he draws from this case is that the syphilitic poison, floating about in the circulatory system, is capable of bringing about those renal changes which result in the granular or waxy kidney; that chronic albuminuria very often means the presence of syphilis in the blood, and that therefore, as a matter of course, the therapeutical indication follows, that the disease depending on such a cause is to be combated with mercury rather than with diaphoretics and diuretics.

Iodoform Ointment.—In the Boston City Hospital, iodoform ointment, in connection with iodide of potassium, is extensively and successfully used in the treatment of syphilitic ulcers and rupia. Dr. William Ingalls, attending surgeon, advocates this formula in two obstinate cases under his care:

℞. Iodoformi..... 3 ss;
Spts. vini. rect..... q.s.;
Adipis suillæ..... 3 vijss.
M.

—*Boston Med. and Surg. Journal.*

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

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FOREIGN AGENCIES.

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New York, May 1, 1871.

THE DRUG-CLERK LAW.

WITH the ostensible object of protecting the people of the city of New York from wholesale poisoning and other terrible things which may be caused by dispensing druggists, the Legislature has given us a new law. This law, known as the Irving Drug Bill, would seem, on its face, to contain many excellent provisions, and in so far it has satisfied the framers. It is, however, well enough understood that political capital is all that our legislators care for, and if it can be gained by blinding the people into a belief that their best interests are served, there is no particular need to respect the rights of a respectable minority.

In order that the letter and spirit of the law may be understood, we shall quote its most important provisions:—

"SECTION 1. The Mayor of the city of New York is hereby authorized to appoint, within ninety days after the passage of this act, a board, to consist of one skilled pharmaceutist, one practical druggist, and two regular physicians of the city of New York, to hold office during the pleasure of said Mayor, to act as an examining board for the examination and licensing of all druggists and persons now employed, or hereafter to be employed, as clerks by any druggist, keeper, proprietor, or superintendent of any drug store in said city, who shall be engaged in preparing and putting up physicians' prescriptions or dispensing medicine. On and after six months from the date of the organization of such board, any person who shall not have passed an examination before and received a certificate from said board, who shall make up, or attempt to make up, a prescription—any physician's prescription—shall be deemed guilty of a misdemeanor, and shall, upon conviction thereof, be fined not more than $500, or imprisoned not longer than six months, or both, at the discretion of the Court.

"SEC. 4. It shall be the duty of said board to examine, on application, all persons employed, or hereafter to be employed, in putting up prescriptions or dispensing medicine in the city of New York, and give a certificate of such examination to the persons so examined, if found competent to act in such capacity, and which certificate shall be deemed as a license for such person to engage in such employment.

"SEC. 5. Said board shall, with the approval of the Mayor, fix the sum to be paid for such certificates by the persons to whom they shall be issued, and all sums or fees for certificates raised by said board shall be appropriated to the payment of the expenses and salaries of the members of said board, or so much thereof as may be necessary, the balance, if any, to be paid into the city treasury. Said board shall cause a true and accurate account of its receipts and disbursements to be kept, and shall, once in three months, make a return of the amount received and expended to the Comptroller of the city of New York."

No one can object to the justice of an examination for any place of trust. In fact, the more rigid and exacting such an examination may be, the better guarantee is there that the trust will be faithfully fulfilled. So far, then, so good. A law, however, which provides for an examination, should also provide for suitable educational advantages. But this is not done. The only calculation is to separate the good from the bad, and while the former may be rewarded with place, the latter suffers total neglect. The trouble with the whole law is, that our political jobbers at Albany have commenced at the wrong end. Wise legislation foresees the advantages of liberal investments in the cause of education. The history of civilization, from the earliest times to the present, proves the feasibility of raising the qualifications of a people *up* to any fanciful standard which any particular law of a country may demand. It is policy first to cultivate the ground by education, and then we can with more certainty and satisfaction pluck the fruit by an examination. In the law in question, the truth is the reform proposed is so radical, so absolute, and so impracticable in its ultimate results, that it cannot be sprung upon the community with any hopes of meeting its requirements. All those now employed in dispensing medicines are within a certain specified time to present themselves before a board, doubtless thoroughly political in character, submit themselves to examination, and, if found wanting, thrown out of place. What must be the result? Many worthy men may fail to pass such an examination as the Board may institute, and yet be qualified to dispense prescriptions. No board can positively decide upon an individual's knowledge by one sitting. Again: The number of drug clerks will be inevitably lessened, and the prescription business of our city will be crowded upon the few. This, certainly, is not one of the means to insure accuracy. One of the greatest faults of our present dispensing system is, that there is too much hurry in the putting up of prescriptions. Mistakes occur almost as frequently from this cause as from all others combined. We can certainly have a demand for good men created; but how, under present regulations, can that demand be supplied?

While we admit that the reform proposed is a good one, as far as it may go, it is, as before intimated, premature. The status of our clerks must be improved; there are a great many who are dispensing prescriptions who should never be trusted with such a responsible office. If we would begin in the right way we should render it obligatory that all these should be

properly educated. We have no right, as a commonwealth, to use the authority of law to establish a proscription—however just such a proscription may appear—without giving a reasonable opportunity in return for the parties who shall be affected by the measure to protect themselves. Would it not be good policy to follow up such a law, by enacting that after a certain time such and such a thing will be required of those who may wish to perform the duties of compounders? Would it not be true wisdom to foster our pharmaceutical colleges, and to encourage them by legislative sanction and by liberal endowments to undertake the education of men who are to be intrusted with the handling of medicines? Far from doing this, there is no mention made in the bill that a diploma from any of these institutions will be considered a sufficient evidence of fitness. The sole qualification rests upon the result of the examination of a board, and that board to be appointed under political pressure. Judging from past experience in this matter, the profession have a right to feel a solicitude as to the entire freedom with which such a board can act.

If one-half of what will be paid for the expenses of these Commissioners, etc., were given to our College of Pharmacy, the results would be in time far more satisfactory to the pharmaceutist and the physician than all the enactments contained in this stupid bill. And yet a modest request for an appropriation was flatly refused by the very parties who had the Irving bill in charge. This very law may tend to stimulate the study of pharmacy in a proper way; but how can the pharmaceutists be able to help themselves before the coming generation, who may take advantage of extra means of study, be available? Again: Are they morally bound to accept any and every one who may present a license from the board? How much more prudent would it have been to trust to the judgment of each pharmaceutist to procure the best educated men possible, and wait patiently until the time should come when he could get better; when the provisions of a prospective law should act as a stimulant for all interested in obtaining appointments to acquire the necessary knowledge to hold their appointments.

But it may well strike one with astonishment to know that the law, which seems to watch so diligently over the interests of the community, has no provision for qualification of wholesale dealers. These parties can seemingly do as they please; hire any one to handle their drugs, sort, or sell them. It is a notorious fact that many cases of poisoning charged upon the drug clerk are, in reality, due to the carelessness of the wholesalers. Many articles are wrongly labelled by them, and the labels, being accepted as true, are duly honored. From the cask the medicines find their way into the shop-bottle, and from the shop-bottle to the prescription. It is idle to suppose that every pharmaceutist should be compelled to rectify such mistakes by a careful analysis of everything he buys.

The law is an experiment, and nothing more, and time will tell how impracticable, unjust, and stupid it will prove itself to be.

Reviews and Notices of Books.

A Treatise on the Chronic Inflammation and Displacement of the Unimpregnated Uterus. By Wm. H. Byford, A.M., M.D., Professor of Obstetrics and the Diseases of Women and Children, in the Chicago Medical College; author of "The Practice of Medicine and Surgery, applied to the Diseases and Accidents incident to Women," &c., &c. Second Edition, enlarged, with numerous illustrations. Philadelphia: Lindsay & Blakiston. 1871.

We find in this volume many things to approve, and not a few to endorse. The author has hardly done himself justice in the revision and enlargement of his treatise, though he claims in the preface to have represented the experience of the profession for the last six years, in the branches of which he treats. In the first place, the subject is too comprehensive in all its bearings to be satisfactorily disposed of within so small a compass. In the second place, whatever may have been the author's experience, we do not believe his opinions on therapeutics coincide with those of the most advanced gynecologists of the day. He seems to adhere to the old régime, and a young practitioner who should take this manual as his guide, would very often do his patients more harm than good. Many of his views, however, are excellent, and, to a certain extent, original; and the chapters on general treatment, and on the sympathies of the system with the uterus, strike us very favorably. The remarks on the management of constipation are also very good. There is a wise suggestion made under the head of "nervous prostration," which will admit of a much wider application. The author says, "There is no question, I think, but that complicated formulæ often nullify themselves by containing ingredients intended for the liver, kidneys, and skin, which ought all to act about the same time; we should act upon each of these alternately, in quick succession, if we think best; but let each organ feel the full impression of its remedy before the blood and nervous energies are directed to another."

Professor Byford's remarks upon local treatment contain little that is new and much that is very old. The use of strong nitrate of silver and of caustic potassa is too freely recommended, and sufficient warning is not given of the dangerous consequences known to follow these powerful agents, especially the potassa. Hyalism is approved of in the treatment of enlargement and induration of the cervix, inducing, the author says, "Such a state of comparative comfort that the patients believed themselves cured."

In the chapter on displacements we are surprised to find the use of the stem pessary advised, as correcting "All sorts of deviations," and as the most perfect mechanical support we can make use of." The author also says of the elastic ring pessary, that, "It may be made to replace the uterus in retroversion or prolapse better, perhaps, than any others. It is not so likely to produce intolerable irritation as the stem pessary." It is precisely this "intolerable irritation" which renders the stem pessary worthy only of a place among mediæval instruments of torture. When we add that Professor Byford also approves of the inflated rubber bag as a pessary, we have said enough to prove that, in regard at least to the means of supporting a displaced uterus, the author is a very dangerous guide to the inexperienced.

If there be any truth in the theory of the phrenologists, that the power of constructing sentences bears some relation to the mechanical talents of the writer, then must these talents stand at zero in Professor Byford, for of all the writers we have ever attempted to follow, he is pre-eminently awkward and ungrammatical. A few pages of the volume before us would furnish enough examples of faulty construction to supply all the grammars in Christendom for all time to come. He even exhibits a special ingenuity in entangling his ideas in wordy labyrinths, that sorely puzzle even a patient reader. He says, for instance, speaking of uterine sympathies, "When an organ has been the subject of irritation or functional derangement for a long time, in consequence of sympathy with the uterus, it may become the subject of organic disease, and then continue as an independent affection of perhaps a dangerous character, etc." Here we have an unoffending organ transformed into "an independent affection, of perhaps a dangerous character." It is needless to multiply examples of this sort, for the book is full of them, and this is one of the least complicated.

The illustrations are, for the most part, badly drawn and very coarsely executed, but they convey tolerably well the ideas intended by the author, which is more than we can say truthfully of his efforts with the pen.

GALVANO-THERAPEUTICS. The Physiological and Therapeutical Action of the Galvanic Current upon the Acoustic, Optic, Sympathetic, and Pneumogastric Nerves. By WM. B. NEFTEL, M.D. N. Y.: D. Appleton & Co. 1871.

THIS monograph contains many important truths and many misleading errors. It is true that the acoustic nerve reacts to the galvanic current in accordance with a physiological law; it is not true that the results of physiological investigations afford any reliable guide for the electro-therapeutics of the diseases of the ear.

It is true that galvanization of the acoustic nerve oftentimes favorably affects the general health of the patient as well as relieves the tinnitus, or perhaps the deafness; it is not true that these results are due entirely to the action of the current on the acoustic nerve, or on the brain, since the sympathetic and the spinal cord are also more or less affected in all such applications.

It is true that galvanization of the sympathetic through the neck and down the spine is a therapeutic measure of wide and sometimes wonderful efficacy; it is not true that the effect of such treatment is due to the action of the current on the sympathetic alone, since the spinal cord and the peripheral nerves are always and necessarily affected. It is true that the application of the galvanic current in such a way as to most nearly reach the pneumogastric is of temporary and permanent benefit in cases of asthma; it is not true that such benefit is due to the effect of the current on the pneumogastric alone, since the sympathetic, the spinal cord, and the peripheral nerve are all more or less affected by the current, when it is directed through the track of the pneumogastric, and no man can differentiate entirely or even approximately the part which the sympathetic, the pneumogastric, or the spinal cord bears in the result of such treatment.

It is true that attacks of sick headache may be relieved, and the intervals between the attacks greatly lengthened by galvanization of the cerebro-spinal region; it is not true, as the author would imply, that there is any uniformity in these results.

It is true that electro-physiology has been of service to electro-therapeutics; it is not true that scientific electro-therapeutics should be based on electro-physiology, or that it is dependent upon it, since some of the most remarkable results in electro-therapeutics have been obtained by those who had never heard of the term electro-physiology. Throughout this little treatise there runs the idea, which is nowhere distinctly stated, that therapeutics is or can be an exact science, and that we should treat disease as we should solve a problem in mathematics.

This idea is not new; it is older than Hippocrates, who devoted his lifetime to its refutation. From time to time it has been revived by various theories, and though often repelled, it has never been entirely or permanently vanquished. Science, though often relieved, has never been absolutely delivered of its presence. Like certain metastatic diseases, when driven from one point it appears in another, and gathers reinforcement on the way.

In the earlier part of this century this idea became dominant—especially under the influence of the quaternion of German transcendental philosophers—Kant, Fichte, Schelling, and Hegel; and for a long time Germany was the land of fog and *à priori* reasoning. But within the past twenty years a vast change has been coming over Germany. *A priori* reasoning has been giving way to reasoning *à posteriori*, and those of whom Madame de Stael, ever so justly, said "their province is the air," are becoming the most *practical* people on the globe. Deduction is giving way to induction; theory to fact; experiment to experience.

At the present time all the leaders in science, in Germany or out of it, whose opinions are of the weight of a snow-flake, however greatly they may differ in other matters, agree in this, that all or nearly all our sciences, and especially those which are allied to medicine, are just in their infancy: and that not until very distant ages, if ever, will they be reduced to completion or exactitude.

They therefore misrepresent Germany of the present day who charge that it is now the home of mere speculation. Not only her best authorities in general therapeutics, as Niemeyer, &c., but the best authorities in electro-therapeutics, as Benedikt, Bruns, &c., with united voice protest against the delusion that therapeutics can be reduced to an exact science on the basis of physiology, physics, or pathology, and appeal to clinical observation as the true guide for medical practice.

In this respect, therefore, this work is either twenty years behind the times or twenty million years ahead of them.

If the time should ever come when our knowledge of the human system in health and disease, of materia medica, of hygiene, should be so completed as to enable us to mathematically map out the right course of treatment for every or any morbid condition, and precisely predict the result, then we shall be gods, and not men, and shall need no treatment, either by anelectrotonos or catalectrotonos.

ELEMENTS OF MEDICAL CHEMISTRY. By B. HOWARD RAND, M.D., Professor of Chemistry in Jefferson Medical College. Philadelphia: J. B. Lippincott & Co. Second edition. 1871. 12mo., pp. 420.

THIS handy little volume is issued by the author as a full set of notes to his Course of Lectures on Chemistry in Jefferson Medical College, and though discussing in a slight measure the entire subject of chemistry and physics, is confined chiefly to an exposition of their application to medicine. The new chemical nomenclature has not been adopted, and doubts of its general acceptation are expressed. It is certainly very annoying for the practitioner to unlearn the names with which he has been familiar and learn new ones; and

though the latter may come easy enough to the student, it cannot but produce confusion in his subsequent intercourse with professional brethren. In the work before us, a great deal of assiduous care has been bestowed in the arrangement of subjects, particularly in that portion devoted to organic chemistry, in which we are glad to see an admirable little exposition of the chemical and microscopical examination of the urine, with some of Da Costa's illustrations. A list of minerals and their chemical composition, a glossary, and the introduction of an index, add to the value of the book. In view of the present rapid mode of instruction adopted in our American colleges, this conspectus of the domain of medical chemistry is perhaps more suited to induct the student in the alphabet of the science than a more copious treatise. As far as we have been able to judge, the information given is accurate, and in strict conformity to the terms employed in the U. S. Pharmacopœia. Type, paper, and binding are all attractive.

TRANSACTIONS OF THE AMERICAN OPHTHALMOLOGICAL SOCIETY. SEVENTH ANNUAL MEETING. Newport, July, 1870. Pp. 151.

THIS flourishing organization contains forty-eight active members and several honorary members, who represent the principal workers, in this country, in this department of medical science. Ophthalmologists from St. Louis to Boston are represented—showing it to be, as the name indicates, a truly American Society.

Fifty-one pages of the "Transactions" are devoted to a "Report on the Progress of Ophthalmology," by Dr. B. Joy Jeffries, Boston, which the author considers as a supplement to Dr. Noyes' excellent report in the *N. Y. Med. Journal*, Feb., 1870.

Since Dr. Jeffries' able paper was presented to the members of the Society, Dr. Noyes has recorded in the *N. Y. Med. Journal*, Feb., 1871, an elaborate report on the progress of Ophthalmology down to the present date.

Dr. Chas. M. Allin, of New York, reports the three following papers on: "Cyst of the Iris cured by Operation," "A Case of Supposed Glioma," and "Canthoplasty in the Treatment of Diphtheritic Conjunctivitis." Dr. Allin states that the latter operation was for the first time performed by *him* in the acute stage of diphtheritic conjunctivitis. He adds a note to the original paper, informing the profession that Dr. Althof, since his operation, has successfully treated five cases of diphtheritic conjunctivitis by the author's method.

Dr H. D. Noyes contributes two unusual cases of "Foreign Bodies in the Vitreous Humor," and relates his procedure (extirpation and plastic operation) in a case of "Extropium with Exophthalmus." Three wood-cuts accompany the latter paper, and exhibit the marked improvement resulting from the operation. The left eye, which, when first seen, was revolting and distressing, though not attractive after the operation, was far less repellent than before surgical interference.

"A Peculiar Case of Conjunctival and Corneal Inflammation" is submitted by Dr. D. B. St. John Roosa. He states that the case has caused no little embarrassment in diagnosis and treatment by two members of the Society who saw it in consultation. Dr. Roosa thought at one time that it should be classed with cases of intermittent ophthalmia; but it is believed he has now given the correct interpretation of the case. Five peculiarities are noted which entitle the case to be considered an uncommon one.

The "Contribution to the Subject of Strabismus," with excellent plates, by C. R. Agnew, M.D., is well worth the attention of medical men.

Interesting and valuable cases, of which we have not space for more than a mention, are given by Drs. H. Knapp, N. Y., Francis Simrock, N. Y., B. Joy Jeffries, Boston, Francis Delafield, N. Y., G. Hay, Boston, Wm. Thompson, Philadelphia, Thomas R. Pooley, N. Y., Charles A. Robertson, Albany, J. S. Prout, Brooklyn, E. G. Loring, N. Y., and John Green, St Louis.

Those interested in ophthalmology will do well to consult this collection of rare cases and reports, if they have not already done so, as it contains the essence of what is known in this department of medical science. We look upon the volume as one of the most valuable that has ever been issued by the Society, and it cannot fail to prove an important addition to every medical library.

The officers of the Society are as follows: *President*, H. W. Williams, M.D., Boston; *Vice-President*, C. R. Agnew, M.D., N. Y.; *Recording Secretary and Treasurer*, H. D. Noyes, M.D., N. Y.; *Corresponding Secretary*, H. Althof, M.D., N. Y.; *Publishing Committee*, E. G. Loring, M.D., N. Y., D. B. St. John Roosa, N. Y.

The next place of meeting is at the Ocean House, Newport, R. I., Thursday, July 22, 1871.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 3, 1871.

DR. ABRAHAM JACOBI, PRESIDENT, in the Chair.

THE President announced the admission to membership of Dr. J. Lewis Smith.

The report of the Committee on Intelligence was read by Dr. Castle, and that of the Committee on Meteorology by Dr. Goodwillie.

ABSCESS OF APPENDIX VERMIFORMIS CÆCI.

DR. LEONARD WEBER read an extended paper upon this subject. After a full bibliography and an account of the anatomy and relations of the vermiform process, the paper considered the pathology and causation of abscess of the region adjoining it.

It is usually due to perforation of the appendix, from inflammation and ulceration dependent on a fæcal concretion, or much more rarely a foreign body impacted within it. In the process of ulceration, local peritonitis may be set up, forming adhesions, and so separating the affected part from the general peritoneal cavity, and averting general peritonitis at the time of perforation. Thus an abscess may be formed as large as the first; its contents destined either to undergo disintegration and absorption, or to point and discharge through the abdominal parietes, or into any of the adjacent hollow viscera, or, with fatal result, into the peritoneal cavity. Among the predisposing causes, sex exerts an unexplained influence, the affection being at least four times as common in males as in females. Four-fifths of the cases occur between the ages of ten and thirty-five. All intestinal diseases interfering with normal secretion or with peristaltic action seem also to predispose to it.

The most prominent signs and symptoms are the deep-seated tumor, tender and painful, in right iliac fossa; tympanites; obstinate constipation with, sometimes, transient diarrhœa; vomiting, which may be stercoraceous, indicating intestinal obstruction from pressure; œdema of right lower extremity from pressure on iliac vein, and pain from pressure on nervous trunks; and evidences, local and constitutional, of perforation and peritonitis.

The diagnosis from typhlitis and perityphlitis, and from intussusception in the ilio-cæcal region, is difficult, and sometimes impossible to make with certainty, but it can be rendered eminently probable by considerations into which lack of space forbids us to enter. We barely mention, also, psoas-abscess, tumor of right kidney, perinephritic abscess, and cancer of cæcum, from which the affection is more easily distinguished.

After perforation has occurred spontaneous recovery is rare, death commonly resulting from peritonitis or from other complications. While the abscess remains there is always grave danger of its rupture into the peritoneal cavity, or of its pointing in some untoward direction near at hand; or, after burrowing so extensively in the areolar tissue, pyæmia is a not infrequent consequence.

The medical treatment is that of peritonitis by opium. In the statistics of Volz, we find that 8 cases so treated all recovered, while of 38 treated antiphlogistically only one recovered. Bamberger lost but 10 out of 30 cases treated by opium. No successful surgical treatment seems to have been practised until the operation of incision, instituted by Dr. Willard Parker, of this city, and described by him in MEDICAL RECORD, vol. ii., p. 25 (March 15, 1867).*

In his own practice, the speaker had met with nine cases of abscess in the ileo-cæcal region. He related two of the most interesting, in one of which Parker's operation was performed with success.

DR. SANDS had seen Dr. Parker operate in two cases. In the first, related in the article above referred to, the diagnosis had been undoubted; but in the second it was obscured by the absence of any circumscribed swelling, the feeling being that of deep-seated œdema of the parietes of the iliac fossa; yet Dr. Parker's experience enabled him to dispel the uncertainty, and to operate as successfully as in the former case. In the case under Dr. Parker's care, where the abscess had broken into the intestine, the patient had reached an extreme degree of prostration, and seemed on the verge of collapse; but with the evacuation of the abscess he began at once to mend.

In several of the cases which the speaker had seen he could not be sure whether the abscess was due to ulceration and perforation of the appendix or to inflammation of the loose areolar tissue surrounding the cæcum. He supposed there was no doubt that abscess occurs from the last-named cause, and that the diagnosis must always be difficult. In one case to which he had recently been called in consultation, the diagnosis of perforation was rendered probable by the very marked gurgling felt in the abscess, and the large amount of fetid gas which rushed out when the incision was made. No foreign body was found.

Within the last eighteen months he had seen two cases of much interest. The first he had examined in consultation. A boy was taken sick with what was supposed to be some form of fever. The speaker had found him feverish, with a very prominent swelling in right iliac fossa. The tumor was very firm to the touch, and gave no sign of fluctuation. There was no vomiting, and no evidence whatever of intestinal obstruction. On examination by the rectum, a prominent swelling was found crowding this bowel over to the left side. Dr. Parker was called in consultation, and thought that he detected fluctuation; and it was decided to explore, the next day, perhaps through the rectum. But the next day the patient was more comfortable, and the exploration was postponed. The day following he continued to improve, and so on, until all idea of interference was abandoned.

The other case was in Dr. Parker's practice. A man, twenty-one years of age, had a nonfluctuating tumor, painful on pressure, in right iliac fossa. The symptoms were of no great severity, and it was decided to await their development, and with the same result as in the last-named case. There were at no time any more positive signs of abscess; the tumor and the symptoms gradually disappeared, and the patient recovered. Such cases as these would seem to make it exceedingly difficult to decide whether operation is demanded or not.

DR. HANBURY SMITH had treated several cases of typhlitis, one of which he thought of sufficient interest to relate, translating and condensing from the Transactions of the Swedish Medical Society:

M. C. Lindström, fifty-three years of age, of athletic frame, and previously in perfect health, sickened on the 28th of February, 1843, with shivering, followed by fever and sweating; but, so far as she can remember, unaccompanied by pain. The next day, after having taken an emetic and a powerful cathartic, she was suddenly seized with violent pain in the right iliac region, and vomiting of everything swallowed. The pain increased, extended towards the back, and was particularly severe deep in the right groin.

Called to the patient on the 4th of March, I found the following symptoms: Decubitus half on the back, half on the right side—could bear no other position; knees drawn up, trunk curved to meet them. The countenance much sunk, expressed intense suffering. Skin covered with a cold, clammy sweat; feet cold. The respiratory act short, incomplete, performed solely by the aid of the thoracic muscles. Pulse somewhat accelerated, small and weak; tongue loaded and dry; but little thirst. Obstinate vomiting; no action of bowels since she was taken sick. Abdomen tender on pressure, distended and tympanitic, with the exception of the right iliac region, where the sound on percussion was dull. On a minute examination of this part one could distinctly feel a swelling, exquisitely sensitive to pressure, in which the patient felt a continued dull pain, with now and then a sense of cutting and stabbing. When she attempted to lie altogether on the right side the suffering was unbearably increased, while she could bear to lie on the left side a few seconds, although that position occasioned a very painful dragging in the right groin and whole iliac region. She could not straighten out the right leg, the attempt occasioned so much pain in the same region. Urine very scanty, deep reddish brown in color. No sleep since the commencement of her illness.

This group of symptoms, some of them pointing unmistakably to their cause, could only be referred to typhlitis, with probable abscess of the vermiform appendix.

The treatment was the well-known opiate, and need not be particularized.

After several very severe exacerbations the symptoms began to ameliorate, appetite to return, and on the 21st, the patient still taking opium, a mild diarrhœa set in. On the 22d she voided at stool a false membrane, forming a perfect cast of the inside of the cæcum and appendix, and bringing with it, from the bottom of the latter, a concretion of the size of a large pea—as far as could be determined without injuring the preparation, an enterolith or intestinal concretion. The patient continued to pass portions of pseudo-membrane for several days, after which she slowly recovered, though it was four months before she could move her

* See also successful case of Parker's operation, by Burge, MEDICAL RECORD, vol. ii., p. 169, and account of post-mortem appearances in one of Parker's cases, two years after the operation, by Wynkoop, MEDICAL RECORD, vol. iii., p. 2.—

right leg freely—some evidence of the extent of disease in the pericæcal tissues. When I saw her last, in the spring of 1847, she had continued to enjoy excellent health.

The preparation is now in the Museum of the Carolinian Medico-Chirurgical Institute, at Stockholm, Sweden.

Dr. Krackowizer.—I may mention a symptom which I did not hear described in the paper, and which, I think, I have noticed in a couple of cases; that is a little difficulty in voiding the urine while the tumor is on the increase, showing evidently that parts near the bladder are involved in the adhesions and false membranes which wall up the matter.

Among a number of fatal cases of this affection, in my practice, I can relate but one of perfect recovery. A young man was taken with the symptoms which have been described, in the practice of a gentleman in Brooklyn. After a time Dr. Post was called in consultation; and, finding an evident abscess in the iliac fossa, he cut into it, with great relief to the patient. During the formation of the tumor very general and serious peritonitis had occurred, which was controlled by opium. The patient soon recovered, and the wound healed; when, without known cause, unless too much exercise, the pain recurred, and peritonitis was lighted up afresh. Four or six weeks later, the same scene was re-enacted. At this point I was called to see the patient, in consultation, and found general peritonitis, well controlled under the opium-treatment. There was a fluctuating swelling in the right iliac fossa, and I had only to follow the cicatrix of the previous incisions to give the matter exit. The patient was removed to this city, and the wound had nearly healed, when, as he was looking out of window, a mad bull rushed through the street. Suddenly throwing up his hands, he felt a sharp pain in the old place; was taken down in the same way as before; and a new abscess formed, again to be discharged by incision. One morning, when he had for the fourth time nearly recovered, he noticed, as he threw the wet compress from the wound into the basin, a click which arrested his attention. It proved to be due to the seed of a pear or an apple. From that time the healing was very rapid, and there was no recurrence of the trouble. This was some thirteen years ago. I have since been in the habit of seeing the gentleman from time to time, and not the least trace of any tumor or tenderness can be found.

The most peculiar case I have had was that of a boy, in whom, without any symptoms that could be ascertained, an adhesion had formed, in early infancy, between the vermiform appendix and the bladder, resulting in a cæco-vesical fistula. The first-noticed evidence of this was the voidance of an ascaris lumbricoides by the urethra, which occurred two or three times. Afterwards the child was in the habit of passing liquid fæcal matter with the urine. From the liquid character of the matters so voided, and from the short period after taking food at which the voidance occurred, it was judged that the adhesion could not be in the lower part of the colon. The patient died after an operation for stone, and the post-mortem examination revealed the condition just described.

Another case was somewhat curious. A microcephalic idiot, perfectly helpless, was the object of the tenderest care on the part of his parents. He was fed exclusively on milk up to his seventh year, only once in his life being given a few strawberries. He died with symptoms of ulceration of the vermiform appendix, in which the autopsy discovered two concretions, each having as its nucleus a strawberry seed.

A point concerning the ætiology of the affection has often occurred to me. Seeking the first of the series of pathological changes that led finally to the fatal result, we frequently find, in the post-mortem examination of these cases, not only the recent exudations which had walled up the matter until finally it broke through them into the peritoneal cavity; not only the ulceration and perforation of the appendix; but, besides these, adhesions apparently much older, binding down the appendix to the surrounding parts. My impression is that these first adhesions of the appendix, by their traction, render patulous its opening into the cæcum, and thus expose it to intrusion of seeds or other foreign bodies, about which form the fæcal concretions that lead to ulceration. This point seems to me worthy of further investigation, to ascertain whether or not it is customary to find such adhesions of older date than the ulcerative process.

Dr. Weber thought that the apparently old adhesions of the appendix might be simply the first of those excited by the foreign body in the earlier stages of the ulceration. He was the more inclined to this view, since, in the majority of cases, there was no history of previous trouble in the iliac region.

Dr. S. Rogers, referring to one of Dr. Sands' cases, said that he had once been much alarmed, on introducing an exploring needle into what he supposed to be an abscess of the abdominal wall, at the profuse escape of gas of a thoroughly stercoraceous odor. His first thought was that the intestine might have been punctured; but pus soon followed, and incision gave vent to some two pints of it. He wished to inquire whether the condition of the iliac region for years after the affection had been noted in the paper. Dr. Krackowizer had related one case in which there were no subsequent signs or symptoms.

Dr. Weber said that he had mentioned the possibility of the disappearance of the abscess by absorption, and the possibility, and even frequency, of its evacuation into the intestine, leaving adhesions and thickening.

Dr. Rogers had been watching two cases with much interest at intervals for about five years. One, a gentleman of 60, had had all the symptoms of the affection, but had recovered. Up to the time when last seen, several years later, he still had a tumor at the site of the old trouble, with an occasional twinge of pain there, though there had been no recurrence of the abscess. The other patient had acute and pretty general peritonitis. When first seen by the speaker, he had a red flush like that seen over a forming abscess, covering a space some three inches in diameter in the right iliac fossa. Among the several physicians who had seen him, one of much eminence was said to have diagnosticated perforation of the appendix. The patient's suffering was great, and all the symptoms were very grave. Half a dozen leeches were applied over the red spot above mentioned; semi-narcotism was induced by morphia; and in the course of six hours there occurred a large spontaneous passage from the bowels, the first in six days. There were no untoward symptoms after this; but the man had had a tumor at that point ever since, which now and then would be painful and tender.

DEATH OF DR. UNDERHILL.

Dr. E. C. Harwood, from the committee appointed Feb. 13th, to prepare resolutions on the death of Dr. Richard T. Underhill, reported the following, which were adopted:

Whereas, Through the dispensation of an all-wise Providence, Dr. Richard T. Underhill's fellowship with

us has been severed by death; and whereas we desire to express the high esteem and regard in which we hold his memory,

Resolved, That in his private, professional, and public life, the late Dr. Underhill exemplified many of the highest attributes of human nature; that his sterling integrity, noble character, and genial temperament endeared him to all who knew him well.

Resolved, That while we feel sorrow at our loss, we realize that the deepest grief saddens the hearts that were bound to his by the closer ties of relationship; and that we extend to the bereaved family and relatives our sincere sympathy and condolence.

Resolved, That an authenticated copy of the foregoing be sent to the family of the late Dr. Underhill, and that the same be furnished to the medical journals of this city for publication.

The meeting adjourned.

Adjourned Meeting, March 20, 1871.

Dr. Abraham Jacobi, President, in the Chair.

Pending the arrival of the speaker announced, the President called upon Dr. Chamberlain to continue the discussion of the last meeting, and to give his views on the connection of

SCROFULA, SYPHILIS, AND RACHITIS.

Dr. Chamberlain had understood the President and Dr. Peaslee to recommend the dropping of the term scrofula, as being of vague import, and tending, perhaps, to prevent minute inquiry into the specific conditions of the cases to which it was applied. While he could not but welcome the attempt to rescue any subject of medical inquiry from vague generalities, still he thought we were not yet prepared to renounce the doctrine of diatheses, and should find it difficult to get along without this particular notion of a strumous diathesis.

With reference to the special topic indicated by the President, the speaker supposed the connection between scrofula and syphilis was generally understood to be about this: that syphilis which has passed its active stage in the parent is very likely to be productive of what is called the scrofulous diathesis in the child—a condition marked by the "predominance of the non-vital over the vital tissues," *i.e.*, by predominance of the skin, connective tissue, hair, nails, cartilages; and that these tissues, thus in excess, are prone to irritative disorder, inflammation, and ulcerative disease. This opinion was an old as well as a very general one. He had himself accepted it on the strength of authority, and he had gathered many facts, in the course of his own observation, which seemed to support it. He thought he was safe in saying that, while he had often failed to find in the children of parents whom he knew to be, or to have been, syphilitic, any manifestations of constitutional syphilis, yet he had very often found those manifestations which we class as scrofulous.

As to rachitis, he had repeatedly seen that form of it known as craniotabes in the families of syphilitic parents.

The President.—I certainly did not mean, when I spoke of cases where scrofula was the result of local disease rather than the cause of local disease, to say that the word ought to be done away with. At all events, it is a convenient term, and until we find a better one we may use it. But we should understand, at the same time, that we know of no condition of the blood that is uniformly found in all those cases we call scrofulous.

So far as the connection between scrofula and syphilis is concerned, I think Dr. Chamberlain is perfectly right. We certainly do find, in the families of syphilitic parents, a number of the children, from the oldest to the youngest, syphilitic, and a number of them scrofulous; the tendency to scrofula or to syphilis in the children depending upon the time that has elapsed since the last attack of syphilis in the parent, or upon a return to activity of syphilis that has been for some time latent.

With regard to a connection between scrofula and rachitis, I would like to say a word. Dr. Smith denied it, but I am convinced that he is mistaken, at least in some particulars. We have more than a mere presumption of the connection between syphilis and rachitis. At all events, microscopical proof has been given that many of the bones of the new-born syphilitic exactly resemble rachitical bones. This has been shown of the epiphyses, and more especially of the costal cartilages. There can be no doubt that congenital syphilis and congenital rachitis cannot be distinguished under the microscope in many instances; and so long as that is the case, I believe that we ought to conclude that congenital rachitis may be the result of hereditary syphilis. Coming now to the connection of rachitis with scrofula, we know that rachitis in early life will develop chronic bronchial catarrh, and enlargement at least of the bronchial and tracheal glands. We know that enlargement of these glands is one of the first and principal symptoms of general scrofula. In rachitis this catarrh, lasting say half a year, together with the glandular affection, is due to a stasis of the blood; and this peculiar slow circulation in the rachitical child would tend to general enlargement of the lymphatic glands, and be the first step in the development of scrofula. Thus I think some degree of connection between the two could be proved.

INTUSSUSCEPTION.

Dr. Stephen Rogers read a paper on this affection, narrating a case in his own practice, with comments and references to the literature of the subject. The chief points in the case were the following:

A healthy boy, seven years old, had, on a Sunday, four diarrhœal dejections, without pain, treated with paregoric; and on Monday the same number, also painless, treated same way. On Tuesday a similar movement at 4 A.M., and again at 6 A.M. At 8 A.M. he went to the breakfast-table, quite comfortable; but was hardly seated before a severe attack of colic sent him to bed. With the pain there was great tenesmus, but nothing whatever passed the bowels until this had continued about an hour, when there came a little mucus tinged with blood. Several similar passages soon followed, the amount of blood increasing. There was as yet no sickness at stomach. At this point Dr. Rogers saw the case, and, thinking it one of dysentery, administered by rectum one-tenth grain sulphate of morphia, directing it repeated hourly till relief was given. At 1 P.M. he found it had been twice repeated. The boy had continued to pass bloody mucus, though the pain was mitigated, and at the last passage he had vomited. The vomiting was attributed to the morphia. Skin cool; pulse about 70; moderate tenderness over left hypochondrium, where was a tumor about shape and size of a large hen's egg. This tumor, at first supposed to be splenic, was later found to change its position and its form during the paroxysms of tormina. Dr. Chamberlain was called in consultation; thought the diagnosis doubtful; and advised the continuance of the morphia-treatment till next morning.

Wednesday morning Dr. Jacobi also was brought in. There had been no important change in symptoms,

except that the paroxysms were far less frequent. The diagnosis made was that of intussusception involving more or less of the large intestine. The treatment decided on was: to keep the patient under morphia sufficiently to control peristaltic action; to distend the intestine by injections, either liquid or aëriform; to keep the pelvis raised by placing the patient on his knees and elbows, or even with his breast on a low pillow, so as to get the aid of gravity in reducing the invagination; and during the application of the injection to knead the abdomen, so as to facilitate the reduction.

The patient being already decidedly under the influence of morphia, it seemed unnecessary to give more, either then or afterwards. The injection of air caused such pain that it was abandoned after a single trial, and tepid salt water was selected, as least irritating to mucous membranes, and so least likely to counteract its own mechanical action by exciting peristalsis. At first but four ounces could be introduced, owing to the pain it gave, and that was gradually expelled within a few minutes. After this, however, the injection excited no pain or tenesmus, and the boy said it was doing him good. By evening twelve ounces could be introduced at once.

Thursday morning pulse 100; tenderness on pressure over tumor extending lower down; complete anorexia; as yet no fæcal odor of fluid escaping from rectum. Same treatment continued, and in evening an injection of sixteen ounces was tolerated. Tumor thought to be slightly diminished, but some tympanites rendered this doubtful.

Friday morning, patient had slept most of night without desire to go to stool; pulse 70; tumor smaller and less tender; water from bowel occasionally brought with it small shreds of mucus tinged with blood; boy in good spirits, asking for food, and evidently better. At 10 A.M. an injection of eighteen ounces. At 1 P.M. a small evacuation, consisting of remains of this enema, and a little moulded fæces—the first since Tuesday morning. Two hours later, after another injection, a similar passage. Examination now failed to find any tumor. The child declared himself well, and wanted to get up. He was kept in bed for a few days, but required no further treatment. This was fourteen months ago, and there had been no trouble since.

Our space compels but the briefest allusion to the remainder of the paper. It quoted authorities to prove that intussusception is much less rare than commonly supposed; spoke of its causes; and gave a detailed account of the symptoms and diagnostic points, insisting especially upon tenesmus as indicating that the large intestine is involved, though it may be only in its upper portion. The main principles of treatment advocated have been indicated in our report of the case. Belladonna was thought to be a valuable adjunct to morphia in controlling peristalsis. The speaker had not found, in his reading, any mention of kneading the bowel, or of utilizing the weight of the liquid injected by keeping the pelvis high, which he regarded as of the greatest importance. It had been suggested to employ for injection glycerine more or less diluted, in order to get its osmotic action in depleting the congested bowel at the point of invagination. Experiments made by the speaker on the cadaver had shown that the ileum, artificially protruded through the ileo-cæcal valve, could be pushed back by the force of the breath. The attempt to force fluid through the valve, so as to reduce an invagination of the small intestine higher up, succeeded in two or three experiments on the cadaver without difficulty; in others it was impossible to send the fluid past the valve until a little manipulation removed the obstruction. In conclusion, the paper discussed and advocated the propriety of opening the peritoneal cavity in extreme cases, and applying taxis directly to the bowel affected.

Dr. Cooke had, winter before last, been called to a patient suffering from three or four days' constipation, with tenesmus and mucous discharges, though, he believed, without blood. On introducing his finger into the rectum, preparatory to giving an injection, he felt the opening of an invaginated portion of bowel, much like the os uteri He pushed it up as far as he could; and then, placing the patient on his knees and elbows, forced it further by injection. This position had seemed to him a matter of course under the circumstances. The next morning the patient had no further tenesmus. Another injection was given, and in about twenty minutes he had a natural evacuation.

IRREGULARS AS PENSION-EXAMINERS.

On motion of Dr. Chamberlain, the following resolutions, received from the Suffolk District Medical Society, of Boston, as passed at its meeting of 25th February, were read, and by vote indorsed as expressing the sense of this County Society.

Whereas, the Honorable Commissioner of the United States Army and Navy Pensions has recently dropped from the list of examining pension-surgeons all irregular practitioners; and whereas strenuous efforts have been made, both through the executive departments and through Congress, for their reinstatement, and much illfeeling has been excited toward the Honorable Commissioner; and whereas a large number of the present examining surgeons served in the medical corps of the volunteer forces during the late war; and whereas none but regular physicians were admitted to that corps, or to the medical corps of the regular army; therefore,

Resolved, That this Society approves the action of the Honorable Commissioner of Pensions, in relieving from further duty as examining surgeons all except regular physicians; and respectfully requests the Honorable Secretary of the Interior to sustain the Honorable Commissioner in his action in this respect.

Resolved, That an official copy of the foregoing be transmitted to the Honorable Secretary of the Interior.

(Signed) Geo. C. Shattuck, M.D., *Prest.*
H. H. Hayden, M.D., *Sec'y.*

The meeting adjourned.

Correspondence.

PULMONARY PHTHISIS AND ITS CURABILITY.

To the Editor of the Medical Record.

Sir—In your issues of September 1 and 15, October 15 and December 15, 1868, appeared four articles upon Tuberculosis, which, although original and varying absolutely from the opinions then held by the profession, did not create any comments or criticisms. The views there advanced were refused publication in Boston, New York, and Philadelphia, when you published them, nevertheless. I am glad to be able to support them somewhat by authorities abroad *now!* In my first and third article you will find mentioned the obstruction of the capillary vessels, with subsequent dilatation of their walls, thus allowing fibrin to pass through, and finally the escape of blood-cells into the tissue by rupture. This process I have observed myself as early as 1857, and before I came to America.

The method of observing capillary blood circulation I learned of Prof. Rud. Wagner, in Göttingen; he taught me to put frogs' feet and the lungs of newts under the microscope. In 1857 I was engaged to ascertain the final ending of the filum terminale in all classes of animals and man. Although I spent nine months upon this difficult and time-costing subject, I was not able to exhaust it, because of my sudden departure for America. My attention to it was awakened by Dr. Stilling in Cassel, who assisted me much with his world-renowned accuracy and experience. As I had on hand for this object a variety of frogs, newts, fishes, birds and animals, I often amused myself in repeating the observations of Rud. Wagner, and by making all sorts of experiments. I noticed the escape of blood-cells which now has secured for Dr. Cohnheim in Berlin a world's reputation. Of meshes or stomata of capillaries, I have, however, known nothing; but did, and consider now the buds of Cohnheim for meshes of the connective tissue surrounding such vessel, and which show some resistance to the escaping blood-cells, thus forming a kind of bud before rupture. This process I have applied to the formation of tubercles as early as 1859, but have been totally unable to induce others to accept my views. Prof. Schieppel of Tübingen, Prof. Petroff of Rasan, and Dr. Waldenburg of Berlin, *now* sustain the same views, and have actually observed red blood-cells in newly formed tubercles.

The non-existence of any contagion, advanced by me in my article No. II., is proved *now* by the experiments of Waldenburg, and a host of others. The absolute impossibility of direct inheritance is now shown and admitted by all modern authors (see Waldenburg, Die Tuberculose, Berlin, 1869). The curability is likewise admitted by all authors in Europe; even the self-cure of acute miliary tuberculosis (secondary tuberculosis) is proved on animals, and maintained to exist also in man (empis). In fact all the modern investigations made correspond exactly with what I have shortly given in those four articles. The discovery that the lung capillaries do not lie, as Rolliker states, in the walls of the alveoles, but free in the elastic tissue; the mechanism of respiration, briefly mentioned in my first article; the explanation of the "vulnerability to tuberculosis, etc," of Virchow and Niemeyer, by infantile atelectasis (article No. II.); the theory of the formation of *primary* tubercles by collapse of the alveoles of the lungs; the anatomical classification of lung diseases mentioned in article III., now in the hands of a committee of the Gynæcological Society in Boston; the artificial calcification of both primary and secondary tubercles (embolism), are advances which stand as yet unsupported by any one except myself. Should these remarks, which I send more from gratitude to the Record than for self-illumination, appear fit for publication, you will please make such alterations as you think proper.

I have the honor to subscribe your most obedient servant,

C. Both, M.D.

Boston, April, 1871.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 5th to April 19th, 1871, inclusive.

Randolph, Jno. F., Surgeon.—By S. O. 136, War Department, A. G. O., April 5th, 1871: in addition to his present duty as Attending Surgeon at New Orleans, La., to assume the duties as Acting Assistant Medical Purveyor and Medical Storekeeper.

Clements, B. A., Surgeon.—By S. O. 62, Headquarters Department of Texas, March 30th, 1871: the telegraphic instructions of 21st inst., granting him 30 days' leave of absence, with permission to leave the limits of the Department, are confirmed.

Davis, P. C., Surgeon.—By S. O. 71, Headquarters Department of the Dakota, April 6th, 1871: relieved at Fort Benton, Montana Ty., to accompany battalion of 7th Infantry from that post to Fort Shaw, Mon. Ty., and, on arrival, report for duty as Post Surgeon.

Brooke, Jno., Assistant Surgeon.—By S. O. 73, e. s., Department of the East, on being relieved by Assistant Surgeon Lippincott, to comply with S. O. 109, c. s., from A. G. Office, transferring him to the Department of the Columbia.

Lippincott, H., Assistant Surgeon.—By S. O. 73, Headquarters Department of the East, April 11th, 1871: assigned to duty as Post Surgeon at Raleigh, N. C.

Cherbonnier, A. V., Medical Storekeeper.—By S. O. 136, c. s., A. G. Office, as soon as the Medical Purveying Depot at Santa Fe, N. M., is closed, to repair to Washington, D. C., and report to the Surgeon General for orders.

O'Donnoghue, F., Medical Storekeeper.—By S. O. 136, c. s., A. G. Office, relieved at New Orleans, La., and to report in person to Lieutenant-Colonel Chas. Sutherland, Acting Chief Medical Purveyor, New York City, relieving Captain Geo. Wright, as Medical Storekeeper.

Medical Items and News.

Effects of Regulating the Social Evil in St. Louis.—A committee recently appointed by the Board of Health to examine into the workings of the "Social Evil Law," made an elaborate report to the Board, April 3, from which the following facts are taken:

Whole number of prostitutes registered when the law went into operation, 718; number now registered, 480; decrease, 238. Number of houses of ill-fame in the city when the law went into effect, 119; number now in the city, 90; number of inmates diseased at first, 58; number now, 18. Since the registration 229 women have been added to the registry list, making the total registry 947; actual decrease of this class of women, 468. The report further states that the general sanitary condition of these women has been greatly improved under the operation of the law. Of the total number of women registered, it has been ascertained that 702 of them became prostitutes from choice, 101 because they were seduced, 87 because their husbands treated them badly, and 57 from necessity. The number of men seeking the society of these women has decreased since the law went into effect, notwithstanding the increased chances of immunity from disease. This is attributed, however, mainly to the fact that the men seeking such society are taken more notice of by the officers of the law. The report also states that the whole number of cases of private diseases treated at the hospital and charitable institutions of the city, for eight months previous to the passage of the Social Evil Law, was 539, and the number treated in the same institutions for the eight months the law has been in operation was only 174, showing a decrease of 71 per cent.—*N. Y. Tribune.*

Vaccination.—John C. Hupp, M.D., State Vaccine

Agent, West Virginia, in his interesting report on "vaccination and its protective powers," says that vaccine virus distributed from his office to all the physicians in Wheeling, and to every county in the State, has been the matured crust removed from the arm about the fourteenth day after the vaccination.

For distribution and for constant use in vaccinating, he prefers vaccine virus in this form: First, because of greater convenience, and second, on account of its certain and effectual prophylactic powers. He adds, that the matured scab or crust is generally preferred and used by the most experienced vaccinators in our country, who may be regarded as standard authority. To corroborate his views, the names of the following well-known writers and practitioners are mentioned: —Edwin M. Snow, Superintendent of Health, Providence, R. I.; Drs. J. F. Meigs, Wm. Pepper, and Geo. B. Wood, of Philadelphia; Profs. Austin Flint, and J. Lewis Smith, of New York; Dr. D. Francis Condie, of Philadelphia; and Dr. Chas. C. Lee, late Asst. Surg. U.S.A.

Irregular Obstetrical Cases.—Dr. L. G. Harley, of Wooster, Ohio (*Med. and Surg. Reporter*), has collected the preternatural cases of labor, with other irregularities, occurring in about 2,000 cases in a practice of thirty years, at Dalton, Wayne Co., Ohio.

Forceps cases, 15; perforator and crotchet, 8; placenta prævia, 2; convulsions, 7; arm presentation, 3; prolapsed cord, 2; twins (cases), 21; triplets (cases), 2; acephalous, 2; noseless, 1; hare-lip, 1; club-foot, 1; spina bifida, 2; albino, 1.

Duration of Life.—Mr. Nelson, an English actuary, shows that a temperate person's chance of living is, at 20—44.2 years; at 30—36.5 years; at 40—28.8 years. An intemperate person's chance of living is, at 20—15.6 years; at 30—13.8 years; and at 40—11.6 years

Deaths from Alcohol in Cities.—Dr. Elisha Harris, of N. Y., states it as his belief, that the annual number of deaths from alcohol, in cities, is in the proportion of 100 to every 100,000 inhabitants. Of the deaths from disease of the brain, liver and kidneys in New York City, in 1869 (1369), twenty per cent., or 273 of these cases, were believed to be the immediate results of alcoholism. (*Proceedings of American Association for Cure of Inebriates.*)

Pennsylvania Hospital for the Insane.—The statistical tables of the Thirtieth Annual Report show that 5,796 patients have been received into the hospital since its opening in 1841. Males, 3,079; females, 2,717; Males discharged, 2,910; females discharged, 2,542. The total number of patients at present in the Institution is 344, of which 169 are males, and 475 females. Of the patients discharged during the year 1870, were cured, 94; much improved, 11; improved, 51; stationary, 39; died, 35—Total, 230.

Of the patients who died—28 were admitted for mania, 9 for melancholia, 2 for monomania, and 6 for dementia. Of the 3,079 male patients admitted during thirty years, there were 386 farmers; merchants, 300; clerks, 263; laborers, 240; physicians, 62; lawyers, 60; clergymen, 35; and students of medicine, law, and divinity, 91. Of the 2,617 female patients, there were—seamstresses, 260; domestics, 268; teachers, 73. Of the *single* females, not pursuing a regular occupation, were—*daughters* of farmers, 127; of merchants, 174. Of the *married* similarly situated, were—*wives* of clerks, 71; of farmers, 215; of merchants, 174; laborers, 157; of physicians, 17; and of lawyers and judges, 35. The forms of disease were as follows: Mania in 2,646 cases; melancholia in 1,569; monomania in 792; dementia in 772; and delirium in 17 cases.

The medical officers are as follows: *Physician-in-Chief and Superintendent*, Thomas S. Kirkbride, M.D. *Assistant Physicians*, Drs. S. Preston Jones, William P. Moon, N. Roe Bradner.

Insanity.—Dr. Willard Parker, of N. Y., states that eighty per cent. of the cases of acute insanity treated are restored to health and usefulness.

The Anterior Splint.—The London correspondent of the *Baltimore Medical Journal* writes that Smith's anterior splint has been quite extensively introduced in practice in the military hospitals in France, since the commencement of the late war, by Drs. Tilghman and May, of Baltimore, who were connected with the "Anglo-American Ambulance Corps," and have been in constant service since the battle of Sedan. It has been most favorably received, and these surgeons have furnished a number to the Prussian surgeons.

The Carbolic Acid Treatment in the London Hospitals.—In these hospitals the carbolic acid treatment, more or less modified, is employed after surgical operations. Mr. Erichsen, of the University College Hospital, washes out the stumps with carbolized water, and applies a very simple dressing of lint wet with it. In a Chopart's operation recently at St. Bartholomew's Hospital, Mr. Paget closed the stump, after his operation, accurately, with dressings soaked in a solution of carbolic acid in oil, and said, if all did well he should allow it to remain so for a week—*Correspondent Balt. Med. Journal.*

Medical Society of the County of Kings.—At the fiftieth Annual Meeting of the Medical Society of the County of Kings, held on the 10th day of April, 1871, the following officers were elected for the ensuing year:—*President*—J. H. Hobart Burge, M.D.; *Vice-President*—Jno. S. Young, M.D.; *Secretary*—Rich'd M. Wyckoff, M.D.; *Assistant Secretary*—Geo. K. Smith, M.D.; *Treasurer*—J. S. Prout, M.D.; *Librarian*—W. W. Reese, M.D.; *Orator*—Chas. H. Giberson, M.D; *Alternate*—B. A. Segur, M.D.

Plaster-of-Paris-Dressings. — The Belgian and Dutch surgeons have largely employed plaster-of-Paris to put up broken limbs. We are told that in some cases the shortening was very great. It is to be supposed that in the hasty setting brought about by the large numbers, many such cases must have occurred. The German surgeons use plaster-of-Paris bandages to a large extent. They put up fractures in this way at a very early date, and that in the simplest mode. The bandages are merely soaked in the liquid plaster, and applied to the limb without anything underneath. Occasionally a piece of pasteboard is used to give more support.—*Medical Press and Circular.*

Skin Plaster.—Tiemann & Co., of this city, prepare an excellent skin plaster, or prepared peritoneum of the bullock, for closing the eyelids after extraction of cataract. Prof. Agnew, of Philadelphia, has used satisfactorily this organic substance in the ligation of several large arteries, cutting off the ends of the organic ligature close to the vessel, and closing the wound over it.

Velpeau's Mixture.—The subjoined formula is the original Velpeau's Mixture: ℞. Tinct. opii, tinct. camph. co., tinct. rhei, āā ʒj; ess. menth. pip., ʒx; tinct. capsici, ʒvj. Misce.

New Polyscope.—M. Trouve's new polyscope serves for a laryngoscope, ophthalmoscope, and urethroscope, and represents, when closed, a case seven inches long,

by one inch and a quarter in diameter. The two parts composing it carry each a lens at their opposite extremities; the one two and a half inches, and the other three and a half. In the lids which close the case, two mirrors are placed, the one plane, the other concave, both being pierced in the centre. The case contains two larynx mirrors with handle, three ear speculums, a photophor, or candlestick, with three branches, terminating on the side of the light by a vent, which at the same time does for a reflector; the photophor can ascend to the height of 15¾ inches.

Angina Pectoris.—To the British school belongs the honor of having enriched our knowledge of thoracic diseases by this addition. Dr. Heberden, of London, was the first to give an account of angina pectoris, in 1768. The best writings on angina pectoris have come to us from Great Britain. Most prominent among them are those of Drs. Heberden, Parry, Jenner, Forbes, Hope, Latham, Stokes, and Walshe; and in our own country, Dr. Austin Flint. Canstadt gives the fullest account of the bibliography of angina up to this time.

It is a rare affection. Dr. Flint found only seven of angina among over one hundred and fifty cases of organic diseases of the heart which he analyzed.

J. A. Octerlony, M.D., of Louisville, Ky. (*Richmond and Louisville Med. Journ.*), during a shorter and far less extensive experience, has met with three typical cases. The ages of his cases were respectively 52, 65, and 84. It is a disease of middle life. Of 88 cases collected by Sir John Forbes, 72 were past fifty years. Of these cases 80 were males, and only 8 females. It is supposed to be more common among persons in the higher walks of life.

A New Preparation of Pepsine.—Emil Scheffer, pharmaceutical chemist, of Louisville, Ky. (*Rich. and Louis. Med. Journal*), asserts that no effects can be expected from a solution of pepsine in a solvent containing alcohol. Neither has he much faith in the dry pepsine, owing to its being mixed with half starch, which is apt to turn musty by the least attraction of moisture. The gastric juice containing hydrochloric acid, induced Mr. Scheffer to adopt the more rational plan of preparing his liquid pepsine by using that acid and glycerine. The glycerine in this case not only acts as a preservative, but undoubtedly also produces a soothing effect on the irritated mucous membrane of the stomach. The dose is from one to two teaspoonfuls, after each meal, in cases of dyspepsia, indigestion, and vomiting of pregnant women.

Dr. E. S. Gaillard, of Louisville, adds, that this chemist is worthy of entire confidence, and his preparation is the most valuable that he has used. It has also given entire satisfaction to many of the Louisville physicians who have prescribed it.

A Case of Voluntary Starvation for Forty Days, followed by Death.—Dr. Frederick Dorsey, Hagerstown, Md. (*Rich. and Louis. Med. Journal*), relates a case of this character occurring in a young man, 22 years of age, who, about six weeks before his death, became possessed with the idea that he must imitate the example of his Saviour, to fast *forty days and forty nights*, after which, like Him, he would be an hungered. He began his fast July 12th, at 10 o'clock A.M., and weighed at that time 135 pounds. He continued walking about the house until the evening of the thirty-ninth day, when he went to his bed, complaining of nausea produced from the odor of his own breath, which was very offensive. Up to this time no one saw him professionally. Dr. Dorsey is perfectly confident, as were all who were in attendance, that he ate nothing during the forty days and nights. In three weeks he lost thirty-three pounds, and at his death, Sept. 2d, he could not have weighed more than seventy pounds. His state of mind was evidently produced by *Onanism*, as was acknowledged by himself to several of his most intimate friends.

Mortality of Children in New York City.—Prof. Abraham Jacobi, M. D., in his monograph on "The Raising and Education of Abandoned Children in Europe," puts down the mortality of children in this city as follows: Of all the deaths there were —

	Under 1 year.	1–2.	2–3.	3–4.	4–5.	Total under 5 years.
	p. c.	p. c.	p. c.	p. c.	p. c.	p. c.
1866	28.97	10.15	4.07	1.65	1.65	47.17
1867	32.23	12.06	4.56	2.03	1.61	52,99
1868	32.77	11.60	4.22	2.41	1.49	52.50
1869	29.42	11.55	5.14	2.91	2.07	51.09
	123.39	45.36				

The relations of percentages of the first and second years of life are, for 4 succeeding years, 123.39 and 45.36—45.36 belonging to the second year; in other words, of 100 children born in New York and dying before the end of the second year, 26.9 per cent. have died in their second year, and 73.1 per cent. in their first year.

The Assassin of the late President Lincoln.—Dr A. Brierre de Boismont (*Am. Journal of Insanity*), thinks that J. Wilkes Booth, actor, the assassin of our late President, must be classed among the dangerous and *hallucinatory insane*, as also Jacques Clement, who attempted to murder Louis XV.; the young German who designed to stab Napoleon I., at Schoenbrun; and the three would-be assassins of George III. This writer gives this account of Booth:—From the history given of him, no doubt can remain as to his mental derangement, and the two following anecdotes are conclusive proofs:—On one occasion, while on a voyage in the ship *Neptune*, he seemed much depressed, and spoke frequently of Conway, an actor, who committed suicide by jumping into the sea. When the vessel neared the spot where the unfortunate man perished, Booth, no doubt by some delusion or hallucination, rushed from the cabin, saying he had a message for Conway, and jumped into the sea. He was immediately rescued, but gave no explanation of his mad act. On another occasion, when he was expected to appear before a crowded audience at the Park Theatre, the time for the curtain to rise came, and he was nowhere to be found. Messengers were sent in all directions, and he was finally discovered at a fire in an adjoining street, working with all his strength at an engine. Upon being asked what he was doing there, he replied with the most childish *naiveté*, that he was helping to save the property of unfortunate people.

De Boismont is in error in ascribing the above anecdotes to J. Wilkes Booth, the assassin. This personage never crossed in the ship *Neptune*, and never set foot on the stage of the old Park Theatre. His father, Junius Brutus Booth, was at the fire spoken of, and acted at the Park Theatre when Wilkes was a mere lad. In all probability he was a passenger in the *Neptune* bound for Liverpool. Booth the elder was a confirmed drunkard, and on one occasion pawned himself for a glass of gin, and was liberated by Purdy, the manager of the old Chatham, afterwards the National Theatre of New York.

The Criminal Insane of England.—According to Dr. Boismont (*Am. Journal of Insanity*) the criminal

and dangerous insane number about 700 out of 64,658 insane and idiots.

This observer's ideas upon the difference in the nature of crime, of moral perversity, of vice in the unhealthy, of strange criminal attempts, when they have for foundation the degeneracy of the organization, are worthy of careful study.

Who are Responsible for the Rib-Fractures among the Insane.—W. Lauder Lindsay, M.D., Physician to the Murray Royal Institute for the Insane, Perth (*Edinburgh Med. Journal*), in relation to the causation of rib-fractures in insane hospitals, regards as the *real offenders*, not the poor defenceless attendants, who are at present saddled with the whole of the guilt, but the following categories of persons or institutions, viz.:—First, Such men as Conolly and Gardiner Hill, who have promulgated the absurd and mischievous dogma, that in *all* cases mechanical restraint is unnecessary and improper. Second, All who have adopted this dogma of *non-restraint*, who have imbibed the extreme views of Conolly and Hill, constituting them their creed *quoad* the management of the insane; including especially—(*a.*) The general public. (*b.*) The general newspaper press, with certain exceptions; (*c.*) A section, at least, of the medical press, such as the *Journal of Mental Science* and the *Lancet*. (In favorable contrast are the ideas of the *Medical Times and Gazette*.) (*d.*) The Board of Lunacy.—Dr. Lindsay adds, in conclusion, that the narrow views of the *Journal of Mental Science*, on this subject, are in marked contrast to the more liberal and enlightened ideas of its predecessor and rival, the *Journal of Psychological Medicine*, as edited by Dr. Forbes Winslow.

Philadelphia County Medical Society.—The officers of this Society for the ensuing year are: *President*, J. Aitken Meigs, M.D.; *Vice-Presidents*, A. H. Fish, M.D. W. B. Atkinson, M.D. *Recording Secretary*, L. S. Bolles, M.D.; *Assistant Recording Secretary*, N. Hatfield, M.D.; *Corresponding Secretary*, T. J. Yarrow, M.D. *Treasurer*, Wm. W. Welch, M.D. *Censors*, Drs. H. St. Clair Ash, Chas. S. Boker, Alfred Stillé, Andrew Nebinger, and H. Y. Evans.

Nursery and Child's Hospital, New York.—The Seventeenth Annual Meeting of this Institution was held in the chapel of the building, corner Fifty-first Street and Lexington Avenue, March 1, 1871. Rev. John Hall, D.D., presided. Mrs. Mary M. Sullivan's Report exhibited the following facts:—From March 1, 1870, to March 1, 1871, there were admitted 358 children; children born during that time, 122. *Adults Admitted:* women for confinement, 139; women with children, 125. There are now in the hospital 205 children and 127 adults. Through the exertions, in a great degree, of the late Dr. Geo. T. Elliot, a country branch of the Nursery has been established on Staten Island, which is in good working order. *The Attending Physicians* are:—Drs. J. J. Hull, J. B. Reynolds, W. T. Lusk, and J. W. McLean. *Ophthalmic Surgeon*, Dr. H. C. Eno. *Consulting Physicians*, Drs. Edward Delafield, H. D. Bulkley, T. M. Markoe, and T. G. Thomas.

Menstruation from Infancy.—Dr. J. H. Ashton, of Norfolk, England, in a letter to the *Lancet*, relates the following extraordinary case:—

L. J. M——, aged seven years, a fine healthy girl, well developed and of ruddy complexion, has been under my care for the last year. Her mother states that she first noticed a discharge two weeks after birth, red in color and small in quantity. This occurred sometimes every month, sometimes at intervals of two or three months, until the child was four years old. Since then the discharge has been quite regular, of good color, and sufficient in quantity to soil one diaper. It is accompanied with pain in the back and loins, and enlargement of the breasts. On examination, nothing abnormal can be discovered about the genital organs. Her mother first menstruated when nine years of age, and has been regular ever since. Her mother's aunt when seven; she continued regular till the climacteric period.

One of the Horrors of War.—The mortality of new-born children in France during the war has been recently calculated by M. Berthillon, and the result is frightful. The author shows that for every 1,000 infants under one year of age there died in the Department of the Marne, 288; in the Department of the Oise, 295; in the Seine-et-Marne, 307; in Seine Inférieure, 318; and in Eure-et-Loire no less than 370. This terrible mortality is, undoubtedly, one of the principal causes of the depopulation of France.—*Medical Press and Circular.*

State Honors to Medical Men.—Dr. Mattei, Professor of Obstetrics at Pisa; Dr. Marcacci, Professor of Pathological Anatomy in the same place; Dr. Fallani, Assistant Clinical Physician of the S. Maria Nuova Hospital at Florence, and Dr. D'Ancona, have been made Knights of the Order of the Crown of Italy. Professor Michelacci, Professor Pellezzari, and Dr. Giacometti (chief of the army sanitary staff), have been promoted to the rank of officer of the same order; and Professor Vannoni, of Florence, has been made commander.

Removal of a Musket Ball from the Frontal Sinus.—Dr. Preston Peter, of Louisville, Ky. (*American Practitioner*), recently successfully removed a musket ball from the frontal sinus of a soldier who was wounded at the battle of Fair Garden, East Tennessee, in 1864.

Before the operation, when the wound would become temporarily closed, or fail to discharge freely, he would become sleepy, approaching an apoplectic coma. Two months after the operation, he looked hearty, was driving a team, suffered no more from headache, neuralgia, or dimness of vision. The region of the wound was somewhat tender when touched forcibly, but otherwise gave him no pain or inconvenience.

American Doctors.—According to the present census there are seventy-four thousand doctors in this country.

Lying-in-Hospitals.—Dr. Hervieux, Physician of the Maternité (*Am. Jour. Med. Sciences*), lays down the following general principles for guidance in the construction of lying-in-hospitals:—

Erect establishments destined to contain not more than from forty to sixty inmates. Let them consist of three separate buildings, one to be appropriated to the pregnant women, one to the lying-in, and one to the lying-in who are sick. Connect these buildings by galleries, and dispose them in such a way as to intercept neither air, light, nor the salutary action of winds and rain. Divide each building into wards for six or eight beds; eight for the pregnant, six for the *accouchées*. Separate the beds of the *enceintes* by a space of a metre and a half, and of the lying-in by two meters (6·56 feet) at least. The wards should be so built as to insure a natural ventilation as far as possible. Each ward should have two exposures, and an equal number of windows in each of them. Each building should have but two stories, the upper one to be occupied by the nurses.

Original Lectures.

TRACHOMA AND GRANULATIONS.

REMARKS BEFORE THE MEDICAL LIBRARY AND JOURNAL ASSOCIATION OF NEW YORK.

BY CHARLES S. BULL, M.D.,

NEW YORK.

SINCE the word *trachoma* was first made use of by Maitre-Jan, in 1740, there has prevailed the greatest confusion among ophthalmologists as to the extent of its application, and also as to the real nature of the affections which it was supposed to designate. Some authors have applied it indiscriminately to all varieties of granulations of the conjunctiva; while others, taking the opposite extreme, and confining it to a too narrow limit, have sought to simplify matters by creating divisions and subdivisions, but have only succeeded in making more confused the labyrinth already existing.

As just stated, the word "trachoma" was introduced by Maitre-Jan, of Paris, in 1740, and was employed to designate everything which corresponded to its original etymological definition, as "asperitas in interna palpebrarum superficie."

Before proceeding to consider its proper application, it may not be amiss to turn our attention to the minute structure of the conjunctiva.

According to the investigations of Henle,* the conjunctiva, from the border of the lids to the commencement of the retro-tarsal folds, consists of a basement membrane, or mucosa, which is the prolongation of the cutis proper, and of a stratified epithelium, disposed in three or four layers; the superficial ones being flattened, the deeper ones approaching the columnar in shape. The surface is flat, perforated by a number of small openings, which are the mouths of blind intestinal-like glands or culs-de-sac, which are imbedded in the substance of the conjunctiva. The walls of these glands are formed by convolutions of the basement membrane, and they are lined by cylindrical epithelium. These glands are arranged closely together, the distance between any two being rarely greater than their diameter.

At the commencement of the retro-tarsal fold the pavement epithelium becomes changed into the cylindrical form, and the papillæ, which are rarely found upon the tarsal portion, become prominent, pushing up the epithelium above the surrounding surface, and thus form wart-like projections, which are visible to the naked eye. The glandular culs-de-sac become larger, and beside these, we now meet with two new species of glands. The one kind is comparatively constant, and belongs to the "acini" variety; they may be regarded as accessory lachrymal glands. They lie in the submucous connective tissue, and are most numerous in the neighborhood of the openings of the lachrymal glands and in the fornix of the upper lid. They are in shape lenticular, flattened from above downwards, and are lined with pavement epithelium.

The second variety of glands found in this portion of the conjunctiva, are the so-called "trachoma glands," conglomerate, tubercular in shape, and exist singly or in groups, sometimes being arranged in rows along the fornix or convex border of the tarsal cartilage.

As the conjunctiva passes from the retro-tarsal fold into that covering the globe, the epithelium again becomes changed, and assumes the squamous form, and the whole conjunctiva gradually grows thinner as it approaches the margin of the cornea. Upon this portion of the conjunctiva there exist no papillæ, and but few glands of any kind.

In oxen and goats the conjunctiva of the globe possesses coil-like glands with external openings, and in pigs there exist small globular sacs with a fine opening and clear contents, in which nuclei, small cells, and fine granules are suspended; and these glands are called Manz' glands, after the anatomist who discovered them. No anatomists have ever been able to discover these glands in man, with the exception of Stromeyer.

Manz* ascribes to the "limbus conjunctivæ" of man a peculiar structure. He says that the connective tissue fibres of the conjunctiva are raised in vascular bands at regular distances towards the epithelial surface, and thus spaces arise in the epithelial layer which covers the limbus, which are filled with round cells, which are the middle layer of epithelial cells. The probability is that Manz has been deceived by a folding in of the conjunctiva.

Thus we see that the conjunctival structure consists of the so-called adenoid tissue, that is of a meshwork of connective tissue fibres, with a large number of cells similar in appearance to lymph corpuscles.

According to von Recklinghausen and others, the meshes of the reticular connective tissue of the conjunctiva communicate with the vessels of the lymphatic system in such a way that the commencement of the lymphatic system is to be found in the meshes of the connective tissue. Now if it happen that the pressure from the centre towards the periphery in the lymphatic vessels is greater than the pressure existing in the reticular structure, a large number of lymph-corpuscles is poured out from the vessels; by pressure they cause atrophy of the neighboring tissues, and thus we have a kind of circumscribed hyperplasia, which we call a trachoma follicle. This connection between the reticular structure of the conjunctiva and the lymphatic system is denied by His and Frey, and the former thinks that a circumscribed inflammation here is always preceded by an effusion from the blood-vessels into the surrounding tissue, causing globular aggregations and inducing secondary atrophy by expansive pressure upon the neighboring parts.

Dr. Kleinschmidt† has published an exceedingly interesting article in the Archives for Ophthalmology, upon the glands of the conjunctiva, in which he arrives at very nearly the same results as Henle. He distinguishes four species of glands, viz.:

1st. The acinous glands.
2d. " sweat glands.
3d. " glands of Manz.
4th. " lymph follicles.

1st. The acinous glands, first described by Krause and called by him "glandulæ aggregatæ muciformes," and by Sappey "glandes muqueuses ou sous-conjonctivales," are situated in the deep structure of the conjunctiva and are regarded as the analogues of Harder's glands, found upon the posterior surface of the third eyelid of some mammals. They occur constantly in man, their favorite seat being the retro-tarsal fold of the upper lid, the lower lid containing but few. They are visible by very slight magnifying power, and resemble in structure the lachrymal gland.

2d. The sweat glands, considered by Meissner to be analogues of the sweat glands of the skin, never occur in man and only in a few of the herbivora, and therefore do not interest us particularly.

* HENLE: *Anatomie des menschl. Auges.* Braunschweig, 1866.

* Zeitschr. f. rat. Med. 3, R. v. 126.
† Archiv f. Ophth. ix., 3, 145.

3d. The glands of Manz are the ordinary mucous follicles or "cryptæ muciparæ," resembling somewhat the mucous follicles of the intestinal tract. Stromeyer* has found them in man as well as in some of the domestic animals, and regards them as the seat of the phlyctenular deposit. According to him, they occur most frequently in the neighborhood of the corneal margin. But we know that these phlyctenulæ also occur upon the cornea itself, and hence some doubt may well be entertained of this latter view, since these glands do not occur upon the cornea. Kleinschmidt has never been able to find them in man, and affirms that they only occur in the pig, their place being taken in the other animals by papillary projections of the connective tissue.

4th. The lymph follicles are by some anatomists regarded as physiological structures, by others as pathological. They are closed, glandular sacs, analogues of the solitary glands of the intestine. Brucht describes them as occurring in groups in the lower lid. Bendz regards them as the seat of granular ophthalmia or conjunctivitis. Stromeyer found them in most of the domestic animals, presenting an elevated, granular appearance like primary trachoma, and considered them to be pathological because almost always giving rise to inflammatory symptoms.

Krause‡ found them almost constant in man, and thus describes them: They are cystiform glands, microscopic in size, without either entrance or exit. They are round or ovoid, white, and consist of a very delicate, pellucid, amorphous membrane, and cellular or granular contents. They do not occur in the tarsal region, where they are confounded with hypertrophied papillæ, but have their favorite seat in the retro-tarsal fold. Attacked by an inflammation, they appear as granulations in and upon the conjunctival surface, whence he calls them "glandular granulations," to distinguish them from papillary enlargements. To this affection of the conjunctiva he gives the name of "trachoma." Furthermore, Krause considers Stromeyer mistaken in comparing them to the abnormally increased intestinal follicles occurring in typhus fever; and regards them as seats of formation of lymph-corpuscles, and hence physiological in nature.

In my own investigations pursued at Vienna, under the instructions of Prof. Stricker, I found the simple mucous follicles, or at least structures resembling them very closely, in the tarsal portion of the conjunctiva as well as in that covering the globe. The lymph follicles described by Krause I found generally in the retro-tarsal fold, and occasionally in the tarsal portion of the conjunctiva.

Having now disposed of the anatomy of the conjunctiva as far as is necessary for our purposes, let us now turn to the disease itself.

The older writers seem to have had very vague ideas of the differences between the various affections of the lining membrane of the lids.

Himly§ has a very curious classification. In his treatise upon the Diseases and Malformations of the Human Eye, published at Berlin in 1843, he makes but a slight distinction between *sarcoma*, *tylosis*, and *trachoma*. He says: "Sometimes there arise upon the border and inner surface of the eyelid several spots, over-nourished, which represent here what the warts or cutaneous growths do upon the outer surface. Such '*sarcomata*' are not the consequences of malignant cancerous cachexia, but merely of a continuous loosening of the tissue, or of too rapid nourishment. The sarcoma is often polypoid in form, provided with a narrow pedicle; sometimes it is a sessile growth with broad base. Although as a rule small, it sometimes grows to great size, and then pulls down the eyelid, causing a ptosis; or displaces the conjunctiva of the lid, everts the palpebral border, and forms an ectropion. If it pushes the eyelid upward and away from the globe, lagophthalmos results, especially if by this means the musculus levator palpebræ superioris is excited to contraction. By pressure and rubbing it can produce inflammation, and by its continued growth, eventually a narrowing of the lachrymal ducts.

"If, on the contrary, the borders of the lids are swollen and hard, in which the meibomian glands are generally involved, causing their ducts to resemble hard, knotty cords, the evil has been called *tylosis*. This is sometimes partial, sometimes involves the whole lid. The hard border is often entirely bald. By pressure and rubbing against the globe it often gives rise to inflammation, and may eventually cause ectropion and entropion. Considerable disfigurement, continual irritation, inflammation, formation of pannus or ulcer of the cornea, are the consequences.

"If the borders or the inner surface of the eyelids are very tubercular and uneven, this symptom has received still another name, *trachoma*, threatening the same dangers to the globe as the two preceding. Either there are in this case groups of several sarcomata or callous processes lying near one another (trachoma caruncolosum), or it is the commencement of a carcinoma of the lid."

Ruete.* in his Hand-book of Ophthalmology, published at Brunswick in 1845, makes no difference between trachoma and the various granular inflammations of the conjunctiva, but classes them all under the same head as "luxuriant growths of the conjunctiva with increased purulent secretion." He says:

"First there are formed by influence of the inflammation upon the surface of the conjunctiva, particularly on the palpebral portion, small, yellowish-white or reddish-white, bladder-like bodies, generally in large number. These contain a white amorphous blastema, and resemble highly developed mucous follicles. These vesicles gradually become reddish-white, and finally entirely red, as the blastema contained in them becomes more organized. They are particularly numerous in the retro-tarsal fold. They project above the level of the conjunctiva and give to it a red velvet-like appearance. They become redder, project more and more like papillæ, and assume a similarity to granulations upon a suppurating surface. At first they are very sensitive, soft, and bleed easily, but in time become fungoid, cauliflower-like, and even almost cartilaginous. The conjunctiva of the globe is traversed by numerous dark vessels. The secretion of a turbid fluid lasts but a short time, and soon passes into pus. As the granulations increase in size, the pain, photophobia, and secretion all become more considerable. The conjunctiva of the globe is filled with a thiek, red, vascular network, frequently reaching to the middle of the cornea; after a time the granulations begin to grow very rapidly and even cover the cornea itself (sarcosis corneæ). Now these inflammations of the conjunctiva, in which is shown a tendency to the production of granulations, possess the peculiarity of attacking the papillary body by preference, but leave the mucous follicles and meibomian glands more or less intact: and this peculiarity is common to all varieties of granulations.

* STROMEYER: *Beiträge zur Lehre der granulösen Augenkrankheiten.*
† Zeitsch. für wissensch. Zoologie. Band v., 227.
‡ KRAUSE: *Handbuch der menschl. Anat.* Band I., 514.
§ HIMLY: *Krankheiten u. Missbildungen des menschl. Auges.* Berlin, 1843.

* RUETE: *Handbuch für Ophthalmologie.* Braunschweig, 1845.

"The histological identity of the various forms of granulations, if satisfactorily proven, would go to show that an inflammation united with the formation of granulations and the secretion of pus, is always one and the same disease, which presents itself under different forms according to a difference in the individuals attacked, and in the surrounding circumstances; sometimes attacking only the palpebral conjunctiva, sometimes that of the globe; is sometimes more, sometimes less violent; but granulations of one and the same histological nature can be developed under the influence of the most varying inflammations, though some favor their growth more than others." This view of Ruete's I am inclined to think is the correct one, for although the microscopic structure of all granulations is different in some points, yet they may be considered on the whole as similar structures.

Arlt* says that the trachomatous inflammation of the conjunctiva is characterized by the deposit of a brawny exudation in the form of isolated, independent granules or elevations, not only under the epithelium of the conjunctiva of the lids and (in higher degrees) even of the globe, but also in the parenchyma of the conjunctiva and in the deeper structures of the lid, and by the production of shrinking of the infiltrated tissues. It does not consist in primary disease of the papillary body; does not necessarily appear in the beginning with swelling of the whole conjunctiva and exudation of a fluid upon the free surface, and is not contagious like blennorrhœa, with which it has until recently so frequently been confounded. The cause of the deposition of this circumscribed, yellowish, brawny exudation under the uninjured epithelium and in the deeper structures, must finally be sought in a general disease, in disease of the whole organism. The presence here of increased and unchanged secretion is not essential to the disease, and only takes place under peculiar conditions. A certain roughness or unevenness of the palpebral conjunctiva, which is signified by the name "trachoma," remains ever a prominent symptom of the disease in all its forms and stages, even if it does not also belong exclusively to it. This roughness is caused by the exudations, which in relation to their form (globular) and situation (independent of a fixed element of the conjunctiva, papillary body, or mucous follicle) present a certain independent existence, and by the changes which the structures infiltrated by these exudations and metamorphoses undergo. The deposition of these exudations can proceed without perceptible redness, swelling, or change of secretion of the conjunctiva. It begins usually in the lower lid, and can from here pass to the upper lid. The disease runs no distinct course; can last for years, forming from time to time fresh exacerbations. It occurs frequently with scrofulous conjunctivitis, still more so with the catarrhal form of inflammation, and excludes the appearances of blennorrhœa only so far as that this latter, by rapid development and violence of the inflammatory process, induces resorption of the exudation characterizing the trachoma.

Seitz† declares that the old name trachoma or conjunctival roughness announces to us nothing more than a rough, granular, or granulated condition of the conjunctiva, and so far as we have learned to distinguish in recent times between various similar conditions of the conjunctiva, has become insufficient, or at least presupposes a comprehension of the peculiar kind of conjunctival roughness so named. He understands by *trachoma* that form of disease of the conjunctiva which is characterized by the deposit of an exudation, sometimes very fluid, sometimes thick and brawn-like, in the form of more or less circumscribed, roundish, transparent granules of the size of poppy or hempseed, in the tissue of this membrane. The existence of these so-called "trachoma granules," characterized by a high degree of firmness, by virtue of which they are enabled to resist absorption for a considerable time, are the only signs which we regard as belonging to the diseased process under all conditions, and applicable for a strict definition. The trachoma granules present an exceptional variety in regard to their contents, situation, color, and number.

Stellwag,* speaking of trachoma, says: "This affection is characterized by a peculiar roughness, hyperæmia, and swelling of the conjunctiva. These changes are seen upon the tarsal portion, sometimes as hypertrophied papillæ, again as diffuse vascular excrescences, deeply rooted in the conjunctival tissue itself like condylomata, but which are arranged in rows on the palpebral fold, and resemble roundish granules. They are sometimes of the same color as the conjunctiva and only slightly prominent, but again are greatly elevated above its surface, and, from their shape and gelatinous translucency, resemble the spawn of fish or frogs." The appearance of the disease is greatly modified by the greater or less development of the irregularities of the conjunctiva, and hence Stellwag distinguishes four different varieties of the disease, viz.:—

1st. *Granular.*—Here the base of the palpebral fold is strewn with small bodies like the spawn of frogs, traversed by a coarse, vascular network, with sometimes considerable conjunctival swelling. The tarsal conjunctiva is generally smooth, relaxed, and more or less injected.

2d. *Papillary.*—This is always confined to the papillary region of the conjunctiva, and is an "ophthalmia granulosa" of a low degree of development. The tarsal conjunctiva is thickly strewn with fine granulations, beginning about a line from the inner border of the lid, increasing in size as we approach the palpebral fold.

3d. *Mixed.*—This variety, which is called by Seitz "catarrhal or blennorrhœal inflammatory trachoma," is by far the most frequent form of the disease; the symptoms being those of granular and papillary trachoma combined. The granulations cover the whole conjunctiva, even encroaching upon that covering the globe, are very large, and show a disposition to coalesce at their bases, and thus entirely conceal from view the original trachomatous deposits.

4th. *Diffuse.*—This represents a higher grade of development than any of the previous forms, and is distinguished by the large amount of neoplastic formations in and upon the conjunctiva, as well as by the participation of the remaining tissues of the lids in the diseased process. Here the granulations are very irregular formations, separated from each other by deep fossæ. They are real villosities, and occasionally resemble broad condylomata.

In all these four forms the ocular conjunctiva is usually but slightly affected.

Wecker† recognizes three of Stellwag's varieties of trachoma with some slight modifications, viz.:—1st. Granular trachoma or simple granulations. 2d. Mixed trachoma. 3d. Diffuse trachoma. He omits the papillary forms, which he regards as nothing more than hypertrophied papillæ.

Having thus seen what are the views of ophthalmologists, past and present, concerning trachoma, we

* ARLT: *Krankheiten des Auges.* Prag. 1860.
† SEITZ: *Handbuch der Augenheilkunde.* Erlangen, 1869.

* STELLWAG: *Lehrbuch der praktischen Augenheilkunde.* Wien. 1867.
† WECKER: *Traité pratique des Maladies des Yeux.* Paris, 1867.

must now come to some conclusion ourselves upon the subject; and first, we ask ourselves the question, What is trachoma? What is its nature? Is it a neoplasm in the strictest sense of the word? Is it distinct from granulations, and can a line of demarcation be drawn, showing where trachoma leaves off and granulations commence?

Some pathological anatomists regard the trachomatous deposit as similar to tubercle—others to the cheesy deposits, syphilitic in origin, which occur in some of the abdominal viscera. A microscopic examination of these small yellow granules has shown them to consist of a considerable amount of amorphous matter, with occasionally a cell, resembling a lymph-corpuscle or pus-cell, also finely granular. I suppose it is a settled fact, that these small granules are to be regarded as pathological formations, though, from the entire absence of inflammation in many cases, some might be inclined to doubt this.

Now, are these yellow granules neoplastic formations in the strictest sense of the word—heterologous deposits unlike any other structures in the body? I believe they are not. I believe that originally, owing to a stoppage of circulation in the lymphatic vessels, some of their contents become dammed up in these same lymph follicles, and there undergo transformation which leads to a death of the cells, and then, if you please, they can be called neoplastic formations. In this state they may remain for some time without causing any irritation and inflammation in the surrounding tissues. After a varying length of time, either entirely dependent upon the constitution of the patient, or perhaps influenced by surrounding circumstances, they begin to cause irritation. The vessels originally existing in the neighboring parts grow larger, a portion of their contents exude through their walls into the connective tissue and upon the trachomatous deposits, which become larger, and take on the peculiar translucent appearance which has been denominated "frog-spawn." In this stage they have lost all resemblance to the original deposit, and I think should *not* be called "trachoma." I would confine this word, originally signifying nothing but roughness, to the first stage of the deposit, before any inflammatory action has commenced. Even now, in the second or "frog-spawn" stage, the accompanying inflammation is but slight, but generally progressive. The vessels become larger and pour out more exudation, new vessels are formed, and the spawn-like growths become larger and redder in color. The surrounding connective tissue becomes infiltrated, the elevations become more and more prominent, villous in character, pus begins to be excreted, and now we have the popular "granulations," or that much derided term of "granular lids." All signs of the originally existing disease have disappeared, have been covered up from view, if you choose, by the plastic exudation thrown out into the surrounding connective tissue. We have now granulations and not trachoma, and I firmly believe that a diagnosis of trachoma cannot be made, except in the first or non-inflammatory stage, where these small, yellow granules are visible in the conjunctiva. We rarely have the good fortune to see a case of trachoma in the first stage, simply because it does not trouble the patient. I believe that trachoma "per se" is not nearly so frequent an affection as has been represented; and I think that by far the greater number of cases of granular lids have been originally caused by an exudation from the blood-vessels into the connective tissue of the conjunctiva, and have no connection with the lymphatic system.

Whether Arlt's view of trachoma is the true one—viz.: that it depends upon some constitutional taint, that it is a manifestation of a disease of the whole organism—I am not prepared to say. I should be inclined to doubt it, unless a stoppage of the circulation in the lymphatic system may be regarded as due to some general constitutional trouble. I do not believe that trachoma is connected with a tubercular diathesis any more than with any other diathesis.

We now must ask ourselves, is trachoma contagious? and it seems to me that the answer is very easy if we agree to confine the name trachoma to the first stage. There being no inflammation present, there is no secretion. The conjunctival secretion is not increased, and remains normal in this stage, and hence there can be no contagion. But the moment a secretion appears upon the free surface of the conjunctiva, contagion becomes possible. Believing in the nature of the affection as I have given it, I do *not* believe that the secretion from granular lids will cause trachoma, though it will set up a conjunctivitis, always simple at first, but going on to the formation of granulations, and in the blennorrhœal form of inflammation the development of granulations is very rapid.

In most of the epidemics of so-called trachoma, occurring among large bodies of men as in camps or barracks, or among children in schools and asylums, the disease in its first stage has never been recognized until the lids of the healthy were examined as well as those of the ill, and then the little yellow granulations were seen and described, and hence arose the theory of contagion. The fact of the disease prevailing as an epidemic does not necessarily prove the existence of contagious properties, for it is brought about by the same circumstances of life which cause a gradual deterioration in constitutional vigor, such as a crowding together of large numbers of persons in a confined space, bad air, and in many an insufficiency of food. All of the epidemics which have been described, have prevailed in the form of granulations with increased purulent secretion, and especially has this been the case of epidemics of "ophthalmia militaris," so well described and summed up by Dr. Max Peltzer.* In the ophthalmological congress of 1857, where the nature of the "ophthalmia militaris sive granulosa, Ægyptiaca contagiosa" excited considerable discussion, the Danish professor Bendz affirmed that this "ophthalmia militaris" was in no respect to be regarded as a separate, distinct disease, but united in itself the various forms of catarrhal, blennorrhœal, and trachomatous conditions of the conjunctiva, and that granulations only occurred where the two latter forms predominated. He says further that the papillary body is not necessarily to be regarded as the seat of granulations.

In a very carefully written and interesting dissertation upon the anatomy of the eyelids of some of the domestic animals, Dr. Blumberg† asserts that the trachoma-follicles are neither glands nor congenital structures, but are circumscribed hyperplasiæ of the conjunctiva caused by inflammatory increase of the pre-existing lymphoid cells. He regards Henle's views concerning the formation of the trachoma-follicle, viz.: by extravasations from the lymph vessels, as improbable for two reasons: first, because the form of the follicle is too regular; and second, because after wounds, which are the most frequent source of extravasations, we rarely see a granular conjunctivitis produced.

Convinced as I am that the earliest formation of this peculiar deposit takes place in the lymph follicles, it seems to me an interesting question to determine

* MAX PELTZER: *Ophthalmia militaris sive granulosa.* Berlin, 1870.

† PAUL BLUMBERG: *Ueber die Augenlieder einiger Hausthiere mit besonderer Berücksichtigung des Trachoms.* Dorpat, 1867.

whether, after œdema or chemosis of the conjunctiva, the lymph-follicles, originally existing in the tissue, are increased in number and size, and whether trachoma occurs after such chemosis has subsided; for the assertion has been made and confirmed that in the profuse transudations into the mucosa accompanying some intestinal affections, the number and size of the follicles have been considerably increased.

The consequences of trachoma and granulations are too well known to require much to be said about them. But granulations sometimes progress in a very curious manner, and assume peculiar forms. One of the most obstinate varieties of granulations, which seem to resist all means of cure, are those which have their seat along the ciliary border of the lid, generally the upper one, arranged generally in a single row, though occasionally in two rows; and, as a rule, but slightly prominent above the surrounding tissue. They generally have a broad base, and do not show any tendency to coalesce until some caustic agent has been applied to them for their cure, when the spaces between the granulations become infiltrated and indurated, swell up to the level of the original elevations, and we then have a hard, indurated ridge before us, which by its contraction renders the tarsal cartilage more convex, pulling upon it and bending the ends backward as a bow is bent. With this there is generally some degree of entropion, though scarcely enough to cause injury to the cornea by any pressure from the cilia.

Another very rare form of granulations, I had lately an opportunity of seeing in a patient under the care of Dr. O. D. Pomeroy. The patient had originally been treated for a simple conjunctivitis which had gone on to the production of moderate granulations in the neighborhood of the retro-tarsal fold. Some of these had taken on an extraordinary development, projecting from one-sixteenth to one-eighth of an inch above the surrounding surface. They had a broad base, were shaped like a truncated cone, and very rough and warty in appearance. The growths were removed by the scissors, and the cut surface bled very freely, but they returned again as large as ever and were again removed by the doctor. Dr. Pomeroy considers them to resemble the polypoid growths of the lining membrane of the middle ear. Under the microscope these growths are seen to be composed largely of amorphous granular matter and blood-corpuscles, with a varying number of irregularly round or ovoid cells, containing a nucleus and granular matter. Occasionally some fibres of connective tissue are met with. Dr. Pomeroy has seen one other case similar to this, and I have since learned that Dr. Agnew has seen several.

As is well known, one of the most common results of chronic granular lids is inflammation of the cornea. In most of the cases of keratitis caused by granulations, the inflammation is set up by the mechanical rubbing of the growths against the surface of the cornea. In general the corneal inflammation is diffuse in character, occupying the entire cornea. The development of vessels reaches from the periphery well up towards the centre; but I have seen two cases in which the keratitis was circumscribed and occupied the centre of the cornea, though vessels could be traced to the periphery. So long as the granulations remain to keep up the irritation, the keratitis will remain; and as the disease of the conjunctiva recedes under the influence of applications to its granulations, it is sometimes surprising to see with what rapidity the corneal opacity clears up. Occasionally, however, we meet with cases, in which, after all disease of the lids has disappeared, the corneal inflammation still remains in spite of all treatment, and in these cases a peritomy of the conjunctiva around the cornea brings on a favorable result. A strip of conjunctiva from two to three lines in breadth is removed from the globe all round the cornea, and then the subjacent tissue down to the sclerotic coat is thoroughly scarified. A bandage may be employed for two or three days, though I do not think it is absolutely necessary.

Whether granulations would disappear if left to themselves, and whether there would result less deformity to the lid than after the employment of caustics, are two questions which admit of considerable discussion.

It seems to me not impossible that the granulations might from their own luxuriance choke off the supply of blood to them and shrink by contraction, or else drop off like parts that have been ligated from the effects of the same contraction. Whether the contraction in the tissues, which results in all cases after local treatment, is produced entirely by the caustics used, I am inclined to doubt, though I think that a good part of it is.

Some lids present to us the most curious appearances after long-continued treatment. I recollect the case of a young girl who attends regularly at the Manhattan Eye and Ear Hospital, who previously to her appearance there, had undergone treatment for her eyes for a year or two. The lower lid presents the peculiar "frog-spawn" appearance, the granulations being very exuberant. The upper lid has been infiltrated throughout by plastic deposit, affecting the deep structures, which has contracted in a direction parallel to the palpebral slit, and is almost entirely devascularized. At irregular intervals in this dense white cicatrix are small, irregular ulcers looking like sunken rosettes, filled with granulations, which occasionally project above the surrounding surface. These ulcers have been touched with the solid nitrate of silver, sharpened to a point, and the whole inner surface of the lid brushed over with the sulphate of copper. This treatment has been continued for some weeks, and under it the ulcers are slowly but surely contracting in size, and the whole conjunctival surface is gradually assuming the white cicatricial appearance. The corneæ of this girl have presented the most obstinate kind of diffuse keratitis, the epithelial surface being almost trachomatous or granular in appearance.

One of the greatest errors made in our treatment of granular lids, is the changing too quickly from one caustic to another, and not really allowing any one remedy time to work. As most of the cases are very chronic in character, we should not expect to cure them in a day or a week. Perhaps the best caustic for general application to granulations is the sulphate of copper in substance, and I would not employ the nitrate of silver save in exceptional cases, where the copper had already been tried.

In those mild cases of slightly-developed granulations occurring occasionally with simple conjunctivitis of an obstinate character, where the whole surface of the palpebral conjunctiva presents a velvety appearance, a good result is often produced by the application of alum in substance, or of a solution of nitrate of silver, grs. xx.–xl. to the ounce of distilled water. A favorite application in Berlin and Wiesbaden is an ointment of the acetate of lead, made up with glycerine ointment instead of simple cerate. A piece of this about the size of a pea is placed within the eyelids and allowed to dissolve.

Within a comparatively recent period, a new method of treatment has been brought into practice in those cases of obstinate keratitis following granulations. The constant pressure of the roughened inflamed lids upon the cornea, naturally keeps up the inflamed con-

dition of the latter, in spite of all applications made to the conjunctival surface of the lids. The operation I refer to is that of canthoplasty. An incision is made with a scalpel, commencing at the external commissure and extending horizontally outwards upon the temple for a varying distance, the incision including integument and all tissues down to the orbital layer of adipose tissue. Then with a pair of scissors the external canthal ligament, which binds the tarsus to the bony edge of the orbit, is cut through, the lid having previously been put upon the stretch by pulling upon the cilia. This relaxes all pressure upon the globe, and does away with a good deal of irritation. The canthal ligament of the lower lid is not cut, as it is not necessary. The raw conjunctival edges are then united by sutures to the corresponding edges of integument, and thus the palpebral opening is lengthened horizontally to the amount of three or four lines. It has been proposed to divide the external canthal ligament subcutaneously, and thus do away with the external incision, which sometimes occasions considerable deformity, and I believe that one at least of the gentlemen present has already so performed the operation several times.

I see no reason why the desired result cannot be secured fully as well in this manner, and if so, it certainly is to be preferred to the other method.

5 West 46th street.

Original Communications.

ON CANCER AND CANCER CELLS.

By FRANCIS DELAFIELD, M.D.,

CURATOR TO BELLEVUE HOSPITAL.

On April 6th, 1871, Dr. S. Fleet Speir read before the Academy of Medicine a paper with the following title: "The use of the microscope in the differential diagnosis of morbid growths, with a *new* method for determining the diagnosis, prognosis, and treatment of tumors and cancers." The paper was published and set down for discussion at a succeeding meeting of the Academy. Both from the interest of the subject treated of, and its own intrinsic merits, the paper warrants more than a passing notice.

Dr. Speir states that, for ten years, his opportunities for the study of morbid growths have been considerable. He has felt the need of something more than the current theories of the day to solve the problems which arise before the practical microscopist in the study of cancer, and has, therefore, evolved from his own observations a new method.

"It is probable," he says, "that there are two methods for the development of morbid growths: that of exudation, and that of continuous development from pre-existing cellular elements; but the cell is the ultimate element by which we must determine the character of morbid growths.

"The object, therefore, of all microscopic examinations of tumors, is to discover the peculiar kind of cells which compose them.

"There are certain cells, which, when found in morbid growths, are diagnostic of cancer. These cells are of two kinds. One is the 'mother cell,' or 'compound cancer cell.' When we see this cell, there is no longer any doubt that the specimen is a cancer. The other has for its parent type the connective tissue corpuscle—the embryo plastic cell. This cell is found in all cancers, and is a specific cancer cell.

"All normal tissues are heterologous, and have a tendency to continue so.

"The embryo, in its earliest stages, is composed only of one kind of cells—the embryo plastic. Tumors, which are composed of cells of the same kind, are homologous growths. The malignity of a growth is in direct proportion to its homology.

"To determine whether a tumor is malignant we must answer two questions: 1st. Is the tumor heterologous or homologous, considered in its relations to the original or parent type of the tissue in which it is located?

"2d. Is the specimen of cell heterologous or homologous, considered as regards the intimate structure of the tumor itself. That is, are all the cells of the same kind, or are they mixed with other cells and elements?

"A tumor may be heterologous in its relations to itself and to the other tissues of the body, and in both cases be benign.

"But a tumor which is heterologous as to the other tissues, and homologous as to its own cells, is merely malignant.

"Again, a tumor which is homologous as to the other tissues and also homologous as to its own cells, is also malignant.

"But a growth which is homologous as to the other tissues and heterologous as to its own elements, is usually benign.

"Classification of the morbid growths:

Malignant,	Encephaloid, Scirrhus.
Semi-Malignant,	Epithelioma, Myoma, Enchondroma.
Benign,	Glandular tumors, etc., tubercle, and some forms of hypertrophy."

In the study of morbid growths, therefore, to determine the malignancy of a tumor we must first ascertain whether there are any "compound cancer cells" or "any simple cancer cells." If we are not fortunate enough to discover these specific elements, we have then to decide whether the tumor is homologous or heterologous as regards itself and the tissues in which it is situated.

This *new* method commends itself at once by its shortness and simplicity. Any person provided with a microscope, a drawing of the compound and simple cancer cells, and a clear idea of homology and heterology, is abundantly competent to diagnosticate and prognosticate the character of any tumor.

This is certainly a very great gain. For several years past, a very considerable number of misguided men have thought that tumors required the same careful and thorough study as the normal tissues and organs of the body. With this false idea, they have employed laborious and elaborate methods of preparation, and multitudes of reagents and preservative fluids. They have supposed that new growths were organized bodies with a well-defined structure, by which they could be arranged in classes. Growths composed of simple tissues, of composite tissues, and of tissues in which cells are abnormally predominant, have all been carefully studied in their anatomical and clinical relations. All this labor, it appears, has been wasted. It is of no consequence to determine whether a new growth is composed of fibrous tissue, or cartilage, or muscle; whether its cells are scattered indiscriminately, or are arranged in regular forms; whether the cells themselves are epithelial or connective tissue. If we find a cancer cell or a heterology or homology, further labor is useless.

Such a method as this demands our most careful study. Let us, then, consider separately the two con-

stituents of the method: the specific cancer cells and the homologous heterology. 1st. The specific cancer cells. This doctrine, although of great value, is not new. About twenty-five years ago specific elements of tumors were gravely studied and held in high repute. Succeeding generations, with a vain seeking after novelty, have discarded this ancient and honorable doctrine, and have held that all the cells to be found in tumors have their types in normal cells, and have no specific character whatever. The ancient idea of a specific cell was simple: a cell that was peculiar to morbid growths, and that was to be found nowhere else.

Dr. Speir's idea of specific cells is more complicated. He admits two kinds:—the compound and the simple cancer cell. The compound cell is peculiar to cancer, but is not always present in cancers. The simple cell is found in all cancers. It has for its parent type the connective tissue corpuscle, which is found sparsely in the adult, abundantly in the fœtus.

"The 'compound cancer cell' is not always present in cancers, but is peculiar to them." Is this true? I regret that the opinion of most observers, and my own observations, do not correspond with Dr. Speir's considerable experience. The cells which he figures as "compound cancer cells" are examples of malformed epithelial, connective tissue, and glandular cells, and are to be found both in morbid growths and in a variety of inflammatory processes.

This form of specific cancer cell is, therefore, somewhat difficult of diagnosis, for it is absent in some cancers and present in many inflamed tissues.

The "simple cancer cell" presents still greater difficulties. According to Dr. Speir it is present in large numbers in the fœtus, and any observer will find that it is a constant anatomical element in most forms of productive inflammation. And yet this is a specific cancer cell upon which we can rely with great certainty. I am afraid that an ordinary observer would be led into great uncertainty to determine whether the specific cells belonged to a fœtus, a granulating wound, or a tumor.

Let us, then, see if the doctrine of homology and heterology can assist us.

For most pathologists, the words heterologous and homologous have a definite meaning. If a new growth is formed of the same tissue as the part from which it grows, it is called homologous; if it is formed of a different tissue it is heterologous. That is, if a bony tumor grows from bone, it is homologous; if from fibrous tissue, it is heterologous, etc.

Dr. Speir gives to these words a new and curious meaning. He says that new growths are homologous or heterologous not only to other tissues, but to themselves. By this he means that a new growth is composed only of one kind of anatomical elements (homologous), or of different kinds of anatomical elements (heterologous). That is, a myoma, if it is composed only of muscle cells, is homologous to itself; if of muscle cells and fibrous tissue, it is heterologous to itself. If it grows from the uterus, it is homologous as to its situation; if from connective tissue, it is heterologous.

On this basis Dr. Speir lays down these rules:

To be malignant, a growth must be either homologous as to the other tissues, and homologous as to its own cells; or, heterologous as to the other tissues, and homologous as to its own cells.

A semi-malignant growth is heterologous as to the other tissues, and heterologous as to its own cells.

A benign growth is homologous as to the other tissues, and heterologous as to its own cells.

Let us select a few illustrations of these laws.

The lymphatic glands are not infrequently found hypertrophied. This hypertrophy depends on a simple increase in number of the gland cells. Here is a growth homologous to itself and to the tissue from which it springs; in other words a cancer. Fortunately these cancers sometimes disappear under the use of iodine.

After an amputation a stump is often covered with exuberant granulations. These granulations are composed of small round oval cells (specific cancer cells). They form a growth heterologous to the other tissues, and homologous to itself. This form of cancer also fortunately sometimes ends in recovery.

The fœtus in utero at an early stage is composed entirely of "simple cancer cells." It is then homologous as to itself, and heterologous as to its surroundings. At this stage it is very malignant. After it is further developed into tissues it becomes heterologous as to itself also, and is then only semi-malignant.

In persons affected with constitutional syphilis, we find tumors composed of "simple cancer cells" and of fusiform cells (aborted cancer cells) in various parts of the body. These homologous, heterologous cancers are frequently benefited by the use of iodide of potassium.

Again, when we examine tumors, we find that a large number of those whose clinical history is the most malignant, have a regular and composite (heterologous) structure. The ordinary cancer of the breast does not consist merely of an aggregation of cells, but of follicles or tubules of various shapes, and filled with cells, which are neither compound nor simple cancer cells.

Epithelial cancer of the conjunctiva is formed of regular papillæ, covered with well-formed epithelium (a heterologous growth), and I have seen it destroy life within a year.

Such illustrations could be multiplied indefinitely.

It seems, then, that Dr. Speir's new method loses in certainty what it gains in simplicity. Perhaps, until the method is more fully elaborated by introducing a more specific cancer cell, or a more complicated definition of heterology and homology, it will be better for most of us to try and find out *all* the elements of every tumor and what their arrangement is.

The process will, indeed, be more laborious to ourselves, but more satisfactory to our patients.

A CASE OF ANEURISM OF THE ARCH OF THE AORTA, TREATED BY ELECTROLYSIS.

By R. S. LINCOLN, M.D.,

NEW YORK.

Feb. 6th.—Mr. H., a miner, was brought to me for consultation by his physician, Dr. Stearns, of Buffalo. The history of the patient was as follows:—

He was 37 years of age, born in Vermont. For several years he followed the sea as a common sailor, but for the past five years he had worked in the mines of California. His general appearance was that of an active, robust man. He had never suffered from illness other than intermittent fever; there was no history of syphilis or rheumatism, he was not conscious of ever having overtaxed his strength in lifting or otherwise. On the 15th of last June, while leisurely walking, he fell, and on rising found he did not have perfect control of the right half of the body, and that there was some numbness throughout the same side. During the succeeding twenty-four hours he sustained six of these shocks, losing consciousness during only the last two, which continued but ten or fifteen minutes, though the impairment of sensation and motion persisted from the first, and was never wholly recovered from. Immedi-

ately following those attacks, he suffered pain in the right shoulder, extending up the side of the neck and head, and two or three weeks later in the left also, in both of which it had continued with increasing severity. About Dec. 1st, a small pulsative tumor was discovered in the peri-sternal notch, which has steadily increased in size; within the two weeks previous to my seeing him it had doubled. He could swallow only liquid food, breathed rather loudly, and within a few days had some cough, the cause of which was not removed by the effort. His radial pulse was 112, regular and equal in both wrists, but weak; there was no pulsation in the left carotid.* The laryngoscope revealed nothing of importance.

To inspection there was presented a uniformly rounded tumor situated in the median line, and extending from the pomum Adami to one inch below the normal situation of the upper margin of the manubrium, the latter having been absorbed to that extent. The sternal ends of the clavicles were dislocated forwards. The larynx and trachea were crowded slightly to the right, but the prominence of the tumor was equal on either side of the median line, and measured over its apex, either transversely or vertically, four inches and a half. The apex of neither lung seemed to be encroached upon, percussion of these being normal both in front and behind, and respiratory murmur natural. The pulsation and sounds of the heart were both natural. To palpation the tumor was elastic and pulsating, with a distinct thrill, and on applying the stethoscope, a distinct whiz with each pulsation over the whole tumor that could be traced as far as the heart. I diagnosed an aneurism of the arch of the aorta, and advised as the only means of relief, electrolysis combined with a modification of the method known as Valsalva's. The patient was seen at this time by Dr. Sass, and also by Prof. Markoe, who approved of the course recommended, the latter thinking it probable, from the position and size of the tumor, that the innominate artery was involved at its origin.

The patient left the city, but returned, so that the first operation was made Feb. 20th.

During the time (two weeks) that had elapsed, the tumor had apparently doubled its size, and measured six and one-half inches, where it measured but four and one-half before. The pain in the shoulders was now so great as to prevent more than two or three hours' sleep at night, and he was weaker in every respect. For four days previous to the first operation the patient was kept in bed, and iron, quinine, and digitalis administered by day, and morphine at night. At the time of the operation all the symptoms were aggravated, except the pulse, which was 104.

The method† practiced by Ciniselli was followed in the operation so far as practicable, and was only modified as the nature of the case seemed to demand. Seven steel needles, insulated to within one and a half inch of their points, were introduced into the prominent parts of the tumor, one inch and three-fourths below the surface of the integument, and three-fourths of an inch from each other. The cathode and anode were each subdivided into two, and the positive pole preceded the negative as the current passed through each. Every time the poles were changed the number of elements was increased from one to ten, the battery used being a modification of Stöhrer's. No anæsthetic was used in this or the following operation, and the increase of the pain forbade the use of a larger number of elements. The current was closed forty minutes in all.

During the operation the diminution of the distinctness of the pulsation was very marked, and the patient complained only of a burning pain, which became greater with the increase of the number of elements. On removing the needles, gas escaped for a few seconds from each puncture, and with the gas small pieces of clotted blood. The pulsation had almost entirely ceased, and the tumor had a hard feel and was somewhat distended. The integument over the tumor was red. An ice-bag and a wet compress were ordered to be kept on the tumor, and perfect quiet enjoined. The amount of food was restricted—fluids withheld so far as possible; there was prescribed ten drops of the tincture of digitalis every three hours, and one-fourth of a grain of the sulphate of morphia at night.

21st. Pulse 104. He passed a comfortable night. Pulsation of the tumor is more marked than after the operation, but not to the degree that obtained before, and the thrill was less distinct. Eight ounces of blood were taken from the arm—other treatment unchanged.

22d. 9 A. M., pulse 100; comfortable. At 9 A.M. his pulse began to increase in frequency and he complained of faintness. Wine was administered, but these unpleasant symptoms continued till I saw him at 3 P.M., when I found him much excited and nervous, with a pulse that could hardly be detected at the wrist, and with a fluttering heart. Fifteen drops of the digitalis with wine was given at once, and ten drops ordered to be repeated every hour, after which he quickly returned to his former condition.

25th. Pulse 98, less than for weeks; feels better every way, though weak from confinement and restricted diet. The operation was repeated as before. Eleven elements were used, the current allowed to flow fifty minutes. The immediate results were the same as before, but more marked, all pulsation in the tumor being arrested for the time, though it partially returned during the following twenty-four hours.

March 2d. Electrolysis was again repeated, the patient taking ether, which Dr. J. O. Stone was kind enough to administer. The number of elements was increased to fifteen and the time to sixty minutes. The following gentlemen witnessed one or more of these operations: Drs. Markoe, Stone, Bumstead, Sass, Farnham, Noyes, Burrall, Sturgiss, Godwillie, and Stevens.

Circumstances rendered it necessary for the patient to leave the city, though further repetitions of the electrolysis were advised, and arrangements were made to have this done, and the principles of this method of treatment carried out after leaving the city.

On the 9th of March, when I last saw him, his condition, compared with that before treatment began, was as follows:—I could not discover that the tumor had increased in size; its pulsation, thrill, and murmur, were much less distinct, and its fluid contents evidently contained within a thicker and firmer wall. The pulse, which before the operation averaged 112, was reduced to 90 per minute. The pain in the shoulders, though still considerable, was much less acute and more bearable, so that he was able to get more sleep at night. There was no injury to the integument from the needles, their insulation acting perfectly satisfactorily, all the inflammation at the points of introduction and its neighborhood having entirely subsided before the next operation. To Dr. Stevens, for his unwearied attendance upon the patient while under my care, I wish to make acknowledgment.

March 21st, Dr. Stevens wrote:—I am not able to

* To my letter of inquiry, Prof. Miner, of Buffalo, who examined the patient about the middle of December, replied that at that time the pulsation in the left carotid was indistinct, but he did not think it was entirely obliterated.

† Vide N. Y. Med. Jour., May, 1869. Bul. Gen. de Thérapeutie, June 15th, 1870.

discover any change in his condition since you saw him; pulse 90; inflammation subsided; pain less, and strength greater.

Remarks.—If it should not be possible to follow this case further, there are certain points of sufficient interest and importance to call for its publication. The satisfactory result, so far as the treatment was carried out, taken in connection with other well-authenticated cases of aneurism treated by electrolysis, shows the possibility of producing a clot within the sac, that may become consolidated and organized, and thus imitate Nature's only way of curing an aneurism; also the harmlessness with which the operation, if properly conducted, can be carried out—there being no other action at the point of introduction of the needles, than would be experienced from merely puncturing the skin with the same-sized needles, and the congestion of the surrounding integument having entirely subsided in four or five days. The action of the positive pole upon the needles is shown by a degree of oxidation and disintegration throughout the uninsulated portion, the amount depending on the strength of the current and the time it was closed. That but little if any harm could be apprehended from the disintegration, may be inferred from the result in the last operation, when one of the needles had entirely disappeared up to the point of insulation, and some of the others to the fineness of a hair. To electrolysis must be given at least a high position as an auxiliary in the treatment of these affections; and, combined with the method practised by Valsalva, in the seventeenth century, and strongly advocated by Chalmers in England, and Bowditch in this country (repeated venesection, rest in the horizontal posture, a restricted diet, abstinence from fluids, and remedies internally administered to control the circulation), we have grounds for encouragement that promise a measure of success where formerly a speedy death seemed inevitable.

22 West Thirty-First Street.

Reports of Hospitals.

CHARITY HOSPITAL, BLACKWELL'S ISLAND, N. Y.

INCONTINENCE OF URINE OF FEMALES DUE TO ENLARGED URETHRA TREATED BY CAUSTIC SOLUTION OF CHROMIC ACID.

By AUG. C. KINNY, M.D.,

HOUSE SURGEON.

I herewith submit short notes of three cases of incontinence of urine, due to enlarged urethra, treated by caustic solution of chromic acid,—two of the cases being completely cured, the third case very much improved,—the three cases being the only ones treated in this manner.

The solution used was that of chromic acid and water, equal parts, and was applied by means of a small tightly wrapped cotton swab. The manner of applying it was as follows: Having wiped the parts dry, and applied sweet-oil over the tissues surrounding those desired to be touched, the swab, dipped in the solution, is passed over the meatus urinarius, over the mucous membrane surrounding it for one-fourth to one-third of an inch each way, and down into the urethra at least three-fourths of an inch from the meatus, thoroughly cauterizing the mucous membrane.

A thin slough comes away in a few days, and the urethra begins to contract rapidly. As the canal becomes contracted, and the urethritis occasioned passes away, the patient improves, and is finally cured.

In the first two cases, where the incontinence of urine was due entirely to enlarged urethras, the cure was perfect. In the third case, where there was in addition a vascular tumor of the urethra, there was great improvement.

Case I.—M. R, Wd. 16 F. Admitted Feb. 14, 1871. Found incontinence of urine, which had existed for many months. Could not retain her urine in the least, either by day or night; excoriations of vulva and nates from urinary irritation. Could not find any other cause for the incontinence but an enlarged urethra—so very large that the forefinger could be easily introduced into bladder. Patient's general condition pretty fair. Feb. 20th, applied chromic acid to the urethra, and in a few days afterwards slough came away. On examination about one week afterward found urethritis, and urethra very much contracted. March 7th, applied chromic acid again. March 17, urethra has contracted down to one-third of its former calibre. Healthy appearance. Passes but little urine involuntarily at night, and none in daytime. April 6th. Patient does not now pass her urine involuntarily either by day or night. Urethra now somewhat below normal size, but still large enough to allow her urine to pass freely. No urethritis. Discharged cured.

Case II.—A. W., aged 40, widow, Ward 16 F. Was troubled with complete incontinence of urine for several years. Incontinence was almost entirely due to an enlarged urethra. First applied pure nitrate of silver to same parts as applied chromic acid in last case. She was somewhat benefited, but becoming disorderly was discharged, and treatment discontinued for awhile. Returned March 25th, still complaining of former trouble. Applied chromic acid as in last case.

April 6th. Does not pass her urine involuntarily either by day or night. She was examined before being discharged by Dr. Morales, who says that she has entire control over the act of micturition. Urethra about normal size.

Case III.—S., aged 40, widow, Ward 12 F. Had tertiary syphilis. Had very troublesome incontinence of urine, due partly to enlarged urethra, and partly to fungous growth at meatus.

Cauterized with chromic acid as in Case I., one month since, and cut off portion of tumor, since which time she has gradually improved, and is now able to retain her urine by day, but not during sleep.

Progress of Medical Science.

Raw Beef in Anæmia.—James S. Bailey, M.D., Albany, N. Y., writes:—In the anæmia of young girls just verging into womanhood, there is nothing that so speedily relieves this condition as lean raw beef.

There is usually an aversion to any food, at this period, of a solid nature; but upon the contrary, a craving for pastry, pickles and knicknacks, &c.

Upon many occasions I have insisted strenuously upon a change in the mode of living in this respect, and placed patients, if not upon raw beef, upon beef underdone, for a diet, and have invariably experienced marked improvement. It imparts tone to the organs of digestion; by it the blood made is improved in quality.

I am quite certain, in tardy menstruation, if instead of administering ferruginous mixtures, should the diet alone be changed as suggested, and the meals served regularly, with an abundance of exercise in the

open air, many females, instead of dying prematurely, would be restored to usefulness.

Many women acquire the habit of abstaining from food at breakfast, and soon, if food is taken, the stomach rebels. Experience has proved that the healthy stomach requires a supply of food every six hours during wakefulness. Any departure from this established law produces derangement in digestion, and the system must necessarily suffer the penalty for this infringement upon the laws of health.

Skin Transplantation.—At an informal meeting of the Academy, held March 2, 1871, Dr. Benjamin Howard presented a case of skin transplantation by Reverdius' method, which showed different stages of the process in successful progress.

The patient, sent to Dr. Howard by Dr. Hammond, had been a major in the army, and while leading his command at Gettysburgh about seven years and a half ago, a cannon ball passed through his horse and carried away the calf of the right leg of the patient, and so grazed the bones as to cause considerable subsequent exfoliation. Since the accident the patient has been under constant treatment by various surgeons in this country and Europe; but the cicatrization, on reaching a certain point, always lagged and stopped short. Having by the kindness of his friend, Prof. Hamilton, been invited to witness his early operations for skin-grafting, Dr. Howard resolved twenty-three days before the presentation of this case to try this mode of skin-transplantation. The size of the wound then was about four and a half inches in length and one and a quarter inches in width. Five pieces of skin removed by the knife were at different dates fitted into little beds cut out for them, and sealed in with transparent adhesive plaster. The edges of the wound have crept towards each other at a remarkably pleasing rate, which, if continued, will result in complete cicatrization in a few days. The most noticeable points in the case are: That though all the germs adhered completely and at once, those which were less than a grain of rice in size have slowly sloughed their surface; the two latter grafts, which were larger than a grain of wheat and of the whole thickness of the skin, have shown no such disposition—and this, he observes, agrees with the results in the hands of his friend, Mr. Lawson, of London.

Neither of the grafts increased much in size; the healing has been almost exclusively from the circumference of the sore, which the grafts seem to have attracted towards themselves, acting as central piers for the arches of pellicle by which the wound was seen at places to be bridged over.

The exceedingly good result in this case was attributed by the operator, in no small measure, to the sound health of the patient, and the good condition of the base of the ulcer.

In regard to the theory of this operation, it has not yet appeared whether the result was chiefly due to the quality of the tissue engrafted, or to the process set up in the establishment of a new centre of vital action by the adhesion of the part engrafted—the tissue thus ingrown being of any sort whatsoever.

Dr. J. F. Miner, of the Buffalo Hospital of the Sisters of Charity (*Buffalo Med. and Surg. Journal*), in a case of severe injury of the foot, causing considerable suppuration of the parts surrounding the os calcis and the ankle-joint, with entire destitution of skin at the heel, has tried the method of skin transplantation, and finds that the germs have remained adherent and maintained their growth. His result is better than those who have written on the subject state to be generally obtained.

Puncture of the Abdomen in Gastro-intestinal Pneumatosis.—The relief of obstinate meteorism, or tympanites, by puncturing the gut with a fine trocar to give vent to the gas, has been occasionally resorted to with great benefit, and, as would appear, without serious danger. Dr. Julius Stein publishes in the *Deutsches Archiv für Klin. Med., vi. Band*, 4 *Heft*, 1869, two cases in which this operation was performed several times. The first patient was a young woman with enormous double ovarian tumor, which exercised such compression as to prevent the passage of fæces or gas. The meteorism was so great that death was to be apprehended from compression of the lung. An explorative trocar was plunged into the cæcal region, and gave egress to a great deal of wind. The operation was repeated once or twice a day until at least fifty such punctures had been made. They were eagerly desired by the patient. After death, hardly any trace of the punctures was discernible in the mucous membrane, and there was no evidence of inflammation having been produced by them. The second case was a gardener, a man of sixty, who for years had had double inguinal hernia, and was subject to obstinate attacks of colic. In a very severe attack, resisting remedies, and which had produced compression of the lung, with œdema of the lung, inability to take nourishment, etc., it was determined to employ the trocar, which was plunged into the epigastric region just below the xiphoid cartilage, this place being selected on account of its prominence and freedom from pain on pressure. A fine stream of wind issued with force, blowing out a light held before it. Its smell was disagreeable, but was not that of sulphuretted hydrogen, nor that of fæces. In five minutes the patient was greatly relieved, to his intense delight. The meteorism again recurred, and upon the third day compressed the lung to such extent that the patient lay in agony. In all eight punctures were made in the space of fourteen days, seven being within the circumference of a three-kreutzer piece, and one a little below. No untoward reaction followed any of these punctures, but always such relief that the patient begged for their repetition.

Three months afterwards the patient died, and an examination of the corpse revealed the eight points of puncture distinctly visible beneath the cartilage. The subcutaneous connective tissue showed ecchymoses along the line of puncture, but they could not be detected in the abdominal muscles. The punctures led directly to the transverse colon, but neither on its serous nor mucous membrane could the site of more than two punctures be seen. These looked like pinhead dark-red spots, but no hyperæmia nor exudation was to be seen in their immediate vicinity.

Similar cases of puncture have been reported by Oppolzer, Schub, and Streubel, in Germany; by Fonssagrives (*Bull. de Thérap., lxx., Avril*, 1866). Piorry in 1835 employed the puncture in a typhus case, but with unfortunate result from the production of exudation. Friedrich (*die Paracentese des Unterleibs bei Darmperforation in Abdominal-typhus. Berlin*, 1867), strongly recommends this puncture in certain cases. He recommends the gradual withdrawal of the gas, so as to hinder the too rapid return of the condition.

Fatal Result from the Intra-uterine Injection of a Solution of the Sesquichloride of Iron.—Dr. Kern reports (*Würtemberg. Med. Corresp. Blätter No.* 7, 1870) a case of uterine hemorrhage after four successive conceptions and abortions, in a thin, weak, anæmic, and somewhat rachitic woman of thirty-six years of age.

Various stypties were employed, among others an injection of a drachm of the liquor ferri sesquichlorati in ten ounces of chamomile water. A third injection of this solution, further diluted with tepid water, was very painful, induced uterine colic, followed next day by veritable metroperitonitis, which terminated fatally, thirty hours after the injection, in spite of the most appropriate treatment, such as leeches, cataplasms, ice, cold enemas, opium internally and subcutaneously, etc.

On Cataract.—Haynes Walton, Esq., Surgeon to St. Mary's Hospital (*Braithwaite's Retrospect*), does not consider advanced age in itself an objection to operating if nothing else forbid. The best attainable results have followed extraction after ninety, in the hands of Sir W. Lawrence. The late Mr. Scott did the same operation on a female between ninety and one hundred. Dr. Walton has several times performed it to his complete satisfaction, after the eightieth year, and once as late as the eighty-sixth. Two cases of success are published after the patients have turned one hundred years each. Of course, after the seventieth year a person is less favorable for the ordeal of extraction, from a variety of circumstances and from contingencies inseparable from long life.

Congenital Occlusion of the Rima Glottidis.—Dr. Louis Elsberg, of New York (*Trans. Am. Med. Assoc.*), presented to the Am. Med. Association a wax model of an interesting case of congenital occlusion of the rima glottidis, occurring in a young lady, 17 years of age. There is, as far as he has been able to discover, but a single other case of this character on record, and this was not published until after the present case had come under his observation. The latter case, a boy 11 years of age, was seen by Dr. Zurhelle, of Aix-la-Chapelle, in 1869, and published in the *Berliner Klinische Wochenschrift*.

The Value of Chloride of Ammonium.—Dr. William Cholmeley (*St. Andrew's Medical Graduates' Association Trans.*) is impressed with the value of this agent, in doses of from 15 to 25 grs., as a remedy in various forms of neuralgia, tic douloureux, hemicrania, nervous headache, myalgia, lumbago, dysmenorrhœa, and amenorrhœa. It is more effective in combination with iron in the last two diseases. Dr. Cholmeley thinks it acts primarily on the sympathetic nervous system, on the ganglia, and on the vaso-motor nerves, and that through them it affects the sensitive nerves, the spinal cord, and the brain, as well as the other structures and organs of the body.

Is Imperforate Hymen ever Hereditary?—In answering this query affirmatively, Dr. Horatio Yates, Surgeon to the Kingston General Hospital, Canada (Braithwaite's Retrospect), mentions a family where two sisters and two children by a brother's wife had imperforate hymens. He regards these cases as too much to be called a coincidence, but clearly an example of an hereditary peculiarity.

Vesico-Vaginal Fistula.—Dr. R. M. Hodges, of Boston, Mass. (*Boston Med. and Surg. Journal*), reports twenty-five cases of vesico-vaginal fistula, of which twenty-two were cured by operation. In some of them the opening was by no means large, but the incontinence was total, no urine passing by the urethra. In every instance, a catheter was kept in the bladder until after the sutures were removed. Either Sims' self-retaining silver catheter, with a short piece of rubber tubing attached, or a gum-elastic catheter, leading into a urinal between the thighs, was found more comfortable than a long tube conducting the urine to a vessel outside the bed. With two exceptions, the operations were performed at the Massachusetts General Hospital. Fifteen cases were cured by a single operation; five by two, and two by three operations. Of the fifteen cases cured by a single operation, the duration of treatment ranged from 10 to 17 days. The smallest number of sutures used in any case was three, the largest was twenty-two. Until twenty-four patients had been operated on, not a single death had followed the procedure.

Removal of a Pessary from the Bladder.—Dr. Levin J. Woolen, of Moorefield, Indiana (*Am. Practitioner*), reports the removal of a "horseshoe" pessary from a female, at the expense of a vesico-vaginal fistula and partial incontinence of urine.

Dr. Theophilus Parvin states that this is the fifth recorded case of introduction of the open-lever pessary into the bladder; Dr. H. R. Storer having reported two, Drs. T. O. Edwards and Byford one each.

Frequent Tapping of Suppurating Glands of the Neck.—Dr. Lawson Tait, of Birmingham (*British Med. Journal*), remarks, that the objectionable neck-marks following suppurating glands of the neck may be avoided by the careful perseverance in the plan of treatment which he has employed for some years. It consists simply in tapping a gland as soon as he has determined that it contains pus, and in continuing this treatment until the cavity no longer secretes. The means by which he effects this is the little instrument known as Dr. Alexander Wood's morphia syringe. Only two precautions are necessary; and these, never to introduce the needle twice at the same spot, and to introduce it very obliquely into the abscess, entering it at least half an inch from the margin of the tumor.

Dr. Tait has had to persevere, in some cases, till he made as many as fifty punctures, at intervals of from one to ten days, before the treatment was successful, the success being constituted by the complete disappearance of the tumor, without the skin ever breaking.

Hydrate of Chloral in Incontinence of Urine.—Dr. Bradbury, of Aldenbrooke's Hospital, Cambridge (*British Med. Journal*), recently successfully treated a girl, who had been troubled with incontinence of urine for nine years, with one dose of fifteen grains of chloral hydrate. She was ordered this dose every night, but after the first dose there was no return of the complaint.

Nature of Addison's Disease.—In a very exhaustive paper on this subject in Virchow's *Archiv*, in which the author appears to have carefully collated and studied almost every case recorded both at home and abroad, Dr. Rossbach, of Würzburg, arrives at the following conclusion:—Addison's disease is a neurosis—that is to say, an affection not at present anatomically demonstrable, but a functional disturbance of the whole nervous system, which stands in close but not in absolutely essential relation with the suprarenal capsules, and is characterized by serious perturbations of the psychical powers, very strongly marked anæmia, extraordinary debility, and very frequently also by a dark pigmentation of the integument (bronzed skin).—*Lancet.*

The Abrogation of Perinæal Support in Labor.—One argument in favor of giving up all direct support to the perinæum lies in the unfortunate statistics of those who advocate the contrary measure. T. Snow Beck declares that, if the parts were examined by the eye after labor, more lacerations would be discovered than are generally reported. He further states, that

out of 112 primiparæ whom he attended in labor, 57 experienced laceration "through the whole extent of the perinæum." In England the first incidental mention of perinæal support is by Gifford in 1734, and next by Smellie in 1764. In 1767, John Harvie advocated "support" as a novelty in his "Practical Directions, showing a method of preserving the Perinæum at Birth." Three years later, Tolver showed that this was the practice in Paris. But it was only through the influence of Hamilton in 1775, of Foster in 1781, and of Dease in 1783, that "support to the perinæum" became an established canon in midwifery.—*Goodell (Am. Journ. Med. Sciences).*

The Administration of Strychnia in Typhoid Fever.—When the muscular contraction of the heart becomes weak, and the sphincter muscles give indication of relaxation in the advanced stage of typhoid fever, Dr. N. S. Davis, of Chicago, Ill. (*Chicago Medical Examiner*), resorts to the use of strychnia. He gives it with nitric acid, and when the bowels move frequently, tincture of opium is added. In one patient this formula was ordered:—℞ Strychnia, gr. i.; nitric acid, ʒ i.; tinct. opii., ʒ iij.; water, ℥ iij.; of which he directed one teaspoonful to be given every four hours, and the turpentine and laudanum emulsion to be given between.

Renal Calculi.—In a recent discussion at Ann Arbor, Mich. (*Mich. Univ. Medical Journal*), on renal calculi, Dr. Palmer asked whether they were more often phosphatic or oxalic. He said that his experience led him to think that renal calculi were very generally oxalic. In those cases where there was evidently renal colic, but where the concretion was not found, he had ascertained the presence of oxalates in the urine. Dr. Crosby agreed with Dr. Palmer, stating that the phosphatic, owing to its friable nature, would be less likely to form in the kidney, but would be broken up and washed away by the stream of urine.

Fracture of the Larynx.—Dr. L. Redman Preston, Minn. (*Northwestern Med. and Surg. Journal*), publishes the case of an Irish laborer who came to his death at the hands of his wife, and in the examination of his body everything was negative until the larynx was reached. Here was found a fracture of the left ala of the thyroid cartilage, ranging from before, backward and upward across the entire wing. This case is referred to, he says, that it may go on record as another instance of this very rare fracture.

A New Disinfectant.—The hydrated chloride of aluminum, long known to chemists, has lately been extensively used as a disinfecting agent. It is readily made by dissolving alumina in hydrochloric acid. The solution, on evaporating, leaves crystals of what was formerly called the sesquichloride of aluminum in combination with three molecules of water. The atomic weight of aluminum having been doubled by agreement of advanced chemists, the sesquichloride becomes the trichloride of aluminum. The hydrated compound has all the virtues of chloride of zinc without any of its dangerous qualities. It arrests decomposition and destroys disease germs, and still is not injurious or dangerous when applied as a wash for the body or a gargle in cases of sore throat, diphtheria, hooping-cough, or scarlet fever. It has a sweetish, astringent, or aluminous taste. Its virtues are derived from the chlorine contained in it being more highly charged with that element than common salt. It has been successfully used as an antiseptic and in the preservation of food.

Effects of Ozone Inhalation.—In the course of remarks before the Library and Journal Association, supporting and amplifying the views reported in the Record of December 15, 1870 (vol. v., p. 478), Dr. Dewees related a case of pulmonary phthisis of four years' standing, which seemed much relieved by the daily inhalation of ozone, while simple oxygen failed to produce the same effect. The Doctor thought the ozone would prove especially serviceable, by its disinfecting action, in the "putrescent forms" of phthisis. In a case of asthma, complicated with renal disease, similar benefit was obtained.

Change of Color in the Human Hair.—At a recent meeting of the Boston Society of Medical Sciences, Dr. Jeffries exhibited some specimens of human hair which had suddenly turned white. The lock of hair suddenly showed some hairs nearly black and some almost white. The young lady, aged twenty-two, from whom the hair was taken, died of dysentery on the tenth day of the disease, and during the last twenty-four hours of life her hair was noticed to change and become gray. This case is a well authenticated one, and confirms the observations of Virchow.—*Boston Med. and Surg. Journal.*

A Case of Poisoning with Gelseminum Sempervirens.—Joseph G. Pinkham, M.D., of Lynn, Mass. (*Boston Medical and Surgical Journal*), reports the case of a married woman, who, after an abortion, had taken 40 drops of the fluid extract of *gelseminum sempervirens* as an anodyne, and was found in a dying condition. Stimulants were given, brandy, am. carb., etc., in connection with friction, and in about one hour and a half consciousness began to return, but recovery was not complete for several days. Dr. P. says, if another patient similarly affected should come under his care, he should pursue the same course, with the addition of the use of galvanism, if possible.

Medicated Bougies in Gonorrhœa.—Dr. Schuster states that tannin mixed with glycerine at first forms a soft waxy substance, which soon becomes hard and brown, and melts in a moist atmosphere at the temperature of the body. Dr. Schuster has formed small pencils of this compound, which he inserts into the urethra of patients suffering from gonorrhœa. He has found the treatment by means of caustic injections (the abortive method) frequently fail, and that it occasionally produces violent pain, inflammation, and hemorrhage. On the other hand, the treatment with slightly astringent solutions cures the gonorrhœa within a period varying from four to seven weeks, but is often followed by a troublesome gleet. The tannin-glycerine rods employed by Dr. Schuster are from three to four inches in length, well rounded at the extremities, and consist of thirty grains of tannin, one grain of powdered opium, and a sufficient quantity of glycerine to form a pastile. These rods are hard in winter and soft in summer. Before their introduction they should be dipped in warm water. They are to be left for from five to ten minutes in the urethra, and then withdrawn. As a rule they produce no pain. If, however, they be left in for an hour, or over night, more or less pain is caused; and this appears to be due to a combination occurring between the tannin and the mucus or pus, which becomes hard and acts like a foreign body. Dr. Schuster has had no case of orchitis following the use of these pencils, though he has thought it advisable to recommend the employment of a suspensory bandage, nor has he noticed any irritation of the bladder or prostate. In case of gleet, a rod may be left in for a few minutes, and a speedy cure usually results.—*Movimento Medico-Chirurgico di Napoli—National Med. Jour.*

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

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New York, May 15, 1871.

FISHER *vs.* GROSS.

ANOTHER suit for malpractice has lately taken place in which Prof. Samuel D. Gross of Philadelphia, and his son, Dr. S. W. Gross, were the defendants. The plaintiff was Henrietta Fisher, the wife of a colored man who lost his leg during the war. The limb was amputated through the upper third. In the course of time he sustained a severe fall upon the end of the stump, which injury resulted in an aneurism. The patient applied to Prof. Gross for the purpose of having an operation performed. Ligation was done at the clinic of the Jefferson Medical College by Prof. Gross, assisted by Drs. S. W. Gross, Andrews, Newcomb, Saunders, Johnson, and Allis. There was no special difficulty attending the operation, and, barring the ordinary complication of secondary hemorrhage, the prognosis was favorable. Secondary hemorrhage did, however, occur, and the patient finally died. There is nothing unusual in the case until we learn that the dying man requested a Mr. Jermon to have the "matter investigated and see that Prof. Gross was sued for heavy damages."

The patient was faithfully attended by Prof. Gross and his assistants, and every pains taken to guard against any accident. Medical students were in almost constant attendance, and had received directions, in case of sudden hemorrhage, to send for the nearest physician. All these services were rendered gratuitously. An accident happens, and, despite every effort on the part of the surgeon, the man dies, and the surgeon is sued for malpractice. The coroner's jury acquitted the surgeons. Here the matter rested for awhile, until Mr. Jermon ordered the body to be disinterred and to be re-examined by Dr. Duffie. The latter was, however, unable to discover, from his examinations, any evidence of malpractice; in fact, as the vessels of the stump had been removed by the coroner's physician, no cause for death was apparent. A suit was then instituted by Mr. Jermon, according, as he said, to the dying request of Fisher, but in direct opposition to the wishes of the mother of the deceased.

As might have been anticipated, the plaintiff had no case; all the physicians and surgeons who were examined sustained the course of Dr. Gross. The very evidence offered by the plaintiff made out a case for the defendant, and Judge Lynd ruled to that effect, by entering a nonsuit against the former.

The facts brought out in the evidence proved that this was a most deliberate attempt to extract money under false pretences. The attorney who undertook the case agreed to pay all expenses and to give his services besides, the consideration being a certain percentage of the damages, and persisted in his endeavors to work up the case despite the disapproval of the widow, and of the mother of the deceased. An effort was made to compromise the matter by the payment of a certain sum, but this Dr. Gross scornfully refused to do, deeming it but just to himself and to the profession to defy the threats of the friends of the plaintiff. Conscious that the case could stand on its own merits, he insisted upon its going to trial, and the severest rebuke which the legal adventurer could have received was administered by the judge. The profession should be grateful to Prof. Gross and to Judge Lynd for the result of this disgraceful attack upon its honor. No victim for such an attack could have been selected, better qualified by reputation and experience to defend himself in any suit where professional knowledge and professional skill are called in question, and this of itself is a cause for congratulation. The ruling in this case as a point of law cannot fail to have its effect upon similar suits in prospective. It is here shown that suits for malpractice must have sufficient evidence in fact to prove that there is something more upon which to ground a complaint against medical men than a love for damages. The community are beginning to wake up to the fact that the defendant is generally the injured party, and are willing to weigh the evidence of professional skill in its proper balance. The plaintiffs will also learn that the time has come when the medical man is not to be tempted into any compromise for the sake of avoiding an annoying suit or of saving time by a non-attendance at court. Within the past few months we have had two other instances in which the profession have triumphed over annoying suits, and in which important matters in medical jurisprudence have been definitely settled; but the suit against Prof. Gross will, in point of principle, have an equal effect upon the intelligent and discriminating public. A few more such victories will put an end to the trumped-up charges of malpractice. It is seldom, if ever, that the idea of such a suit originates in the brain of the plaintiff. There are always one or two elements which are the means necessary to the end—a pettifogging attorney and an irregular and unprincipled medical practitioner. They generally work hand in hand to defraud the surgeon of his means and of his reputation. The plaintiff is but the tool in their hands, and, stimulated by the chances of large damages, is ever ready and willing to have the facts perverted to suit the

emergencies. If every one of such attaeks were as defiantly met as in this instance, and if medical witnesses on the part of the defendant would be as ready and as willing to testify to professional knowledge, skill, and experience, the results would be as gratifying and as triumphant.

We believe that one of the reasons why medical men dread suits of malpractice is that they do not appreciate the proper relations in which they stand to the community. The law is so framed that every possible protection is afforded them, and no educated medical man need fear to have his professional acts criticised in any court of justice. If he can prove that he has been dutiful to his patient, and has conducted his treatment to the best of his ability, as an educated medical man, he is sure to have the law on his side; but if, from any desire to dodge an investigation, he is coaxed into a compromise, his prudence degenerates into cowardice, and his modesty into an aeknowledgment of incapacity.

Recently a gentleman of Brooklyn, being much worn by the attendance on his father, who died, sent to a pharmaceutist in that city to have a certain vial renewed which had contained an anodyne that he had administered to his father, and which had been prescribed for that purpose by the family physician. The vial was labelled "hydrate choral," and was duly marked to be taken in doses of two teaspoonfuls at certain periods. The messenger complied with the request, and bringing the bottle to the druggist who had originally compounded the prescription, had it filled. The gentleman, without consulting his physician as to the propriety of his course, took a teaspoonful and a half of the anodyne, and shortly thereafter lapsed into unconsciousness, in which condition he remained, defying the efforts of the medical men who were summoned to his aid, until ten o'clock that night, when life became extinct. Deceased was twenty-seven years of age and unmarried. The Coroner's jury returned the following verdict, which will be found interesting to druggists and others:—"We find that the deceased, Henry M. Bragg, came to his death by taking an overdose of hydrate chloral, unintentionally, he not understanding the effect of the medicine. And we, the jury, strongly condemn the practice of druggists dispensing dangerous medicines without an order from a physician for each prescription of its renewal." This is one of the evils of the renewal of prescriptions without authority, but after all only one life is lost in consequence. What is the loss of one life compared with the establishment of a principle?

Dr. D. W. Yandell, of Kentucky, has been elected President of the American Medical Association for the ensuing year. As a faithful and conscientious worker in the profession, as a skilled writer and an able speaker, he is a representative man. We congratulate the Association on its choice.

—The number of accidents occurring to those who attempted to ride upon the front platform of New York street cars, in 1870, and admitted to Bellevue Hospital, was 18. Of these, 6 died, or 33⅓ per cent. The nature of the injuries was as follows: Fracture of the thigh and leg, with laceration of the soft parts, 6; injuries of foot, 4; injury of hand and arm, 2: dislocation of hip, 1; dislocation of elbow, 1; injuries, 4. The accidents occurred, in 11 cases, while the person was getting off the front platform; in 3 instances the victims were pushed off by conductors; 1 fell while getting on; 3 were pushed or crowded off by passengers. The victims of these accidents are very frequently children, or laborers in a state of semi-intoxication. In view of these occurrences it is proposed that gates be attached to the front platforms. We doubt if the perversity of human nature would even allow such measures to be of service.

The inhabitants of Worcester, Mass., have sent a petition to the school commissioners, which petition very properly containing the signatures of a number of medical men, sets forth the necessity of curtailing the time for study in the younger children. Let this example be followed by other communities. The children of the public schools in this city require a great deal of looking after in this respect. Would it not be worth the while of the newly appointed medical superintendent of the Board of Education to inquire into the damage which the little ones of this city suffer as the result of the prevalent crowding system?

We are pleased to see that the advantage of a lengthened term of study has impressed itself upon the Alumni of the Medical Department of the New York University. Witness the following, adopted at their recent meeting in this city:—

Whereas, The Alumni of the Medical Department of the University recall with pride the labors of the founders of their *Alma Mater*, who changed the position of New York, in the medical profession, by making it a centre of medical instruction, and gathered to it students from all points of our Union and the world, and—

Whereas, They also remember movements made by the same Faculty in clinical instruction and increase of the term of study, by inaugurating spring, summer, and autumn courses, therefore;

Resolved, That we respectfully submit to the Faculty the questions of the expediency of still further advancing the course of medical education by an increase in the length of the regular winter session and the division of the students into junior and senior classes.

Resolved, That we will heartily sustain our *Alma Mater* in any movement of this kind.

Resolved, That a copy of these resolutions be transmitted to the Faculty.

Padua Medical School.—This medical school still enjoys a high repute. Here the first anatomical theatre was opened.

Reviews and Notices of Books.

DRESS AND CARE OF THE FEET, showing their natural perfect shape and construction; their present deformed condition; and how flat-foot, distorted toes, and other defects are to be prevented or corrected; with directions for dressing them elegantly, yet comfortably; and hints upon various matters relating to the general subject. With illustrations. New York: SAMUEL R. WELLS, publisher, No. 389 Broadway. 1871.

THE purpose of this manual is to impress on the public the necessity of having boots and shoes properly fitted, in order to avoid the many painful disorders to which the feet are subject. The author claims to have had much experience as a practical shoemaker, and gives some useful suggestions as to the shape and size of shoes and their manufacture on common-sense principles. The chapter on the treatment of corns and bunions is made up of extracts from surgical works, and is very well as far as it goes, but greater stress is very properly laid upon prevention than cure. No fashions in dress are productive of more actual discomfort than those which prescribe a form of shoe at variance with the shape and requirements of the foot. The author points out, in homely but vigorous style, the follies of the prevailing fashion in this particular, and urges the necessity of a reform.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY.—This creditable volume contains interesting reports on excision of the hip-joint for morbus coxarius, State care of the insane, registration of physicians, contagiousness of typhoid fever, on remedial substitutes for blood-letting, and various other papers on practical subjects, among which one on "Amputations and the Treatment of Stumps," by Prof. Theodore A. McGraw, of Detroit; and another on "Sympathetic Ophthalmia," by Prof. J. F. Noyes, of Detroit, deserve particular mention. The State Medical Society has a membership of 122, and is in a flourishing condition. Its officers are as follows: President, Dr. J. H. Bartholomew, Lansing; First Vice-President, Dr. Wm. Brodie, Detroit; Second Vice-President, Dr. Moses Porter, Kalamazoo; Third Vice-President, Dr. Wm. Parmenter, Vermontville; Fourth Vice-President, Dr. H. B. Barnes, Ionia; Recording Secretary, Dr. Geo. E. Ranney, Lansing; Treasurer, Dr. D. O. Farrand, Detroit; Corresponding Secretary, Dr. G. W. Topping, Dewitt.

Reports of Societies.

MEDICAL LIBRARY AND JOURNAL ASSOCIATION OF NEW YORK.

Stated Reunion, February 10, 1871.

DR. S. T. HUBBARD, PRESIDENT, in the Chair.

TRACHOMA AND GRANULATIONS.

DR. C. S. BULL read the paper upon the above subject, which we publish in another part of this number.

DR. ROOSA thought that clinical experience taught the necessity of making the distinction, so clearly brought out by Dr. Bull, between trachoma and granulations. Take, for example, the granulations which came on so rapidly in suppurative conjunctivitis, and attained such a condylomatous size,—any classification must be defective which confounded these with the trachomatous granulations occurring in chronic conjunctivitis.

The Doctor had not spoken particularly of granulations upon the ocular conjunctiva. Although this seat for them was rare, yet the speaker had seen several cases where they had seemed confined to this portion; and he had found some timidity among his professional brethren about removing them with the scissors. But the patients had been so urgent that he had always snipped them off as often as they appeared, and applied strong caustics; and in spite of the warnings, and of the apparently malignant character of the growths under the microscope, the cases had done well. Polypoid granulations upon the palpebral conjunctiva, so large as to constitute a deformity, thoroughly removed with the scissors and touched with sulphate of copper, had not returned.

DR. F. H. HAMILTON thought that all specialists were too apt, in their teachings, to ignore the constitutional causes and the constitutional treatment of the affections to which they were devoted, though he had no doubt that they recognized these in their practice. He had a pet theory that all chronic maladies depend upon some constitutional fault; and granular ophthalmia would be found far most frequent among children of broken-down constitutions, and especially of the scrofulous diathesis.

As to local treatment, he had used sulphate of copper, the scissors, and also scarification. The objection to both of the latter was that they gave rise to cicatricial tissue; but sometimes we could do nothing else than substitute this for the abnormal growth.

DR. R. H. DERBY, in confirmation of the statement that the granulation originates as a simple obstruction of a lymph-vessel, would mention a rare case he had seen, where the lymph-vessel could be observed overlying a blood-vessel and terminating in a granulation.

In the employment of scarification, it was necessary to insist that it should not be carried more than one-third, or, at most, one-half, around the cornea, which else might suffer seriously. In some complicated cases iridectomy had produced the happiest effect where every other means had proved useless.

DR. POMEROY was sure that ophthalmologists were keenly and painfully alive to the constitutional causes at work to produce the troubles they had to deal with, and to the desirableness of proper hygienic treatment. But what could be done with the bulk of the dispensary cases from such regions as Baxter street? You might tell them to eat good food, but they could not get it; to breathe fresh air, but they were crowded, a dozen together, in stifling rooms. You would give them iron, perhaps, or cod-liver oil, but in the main you could only treat them locally; and the local treatment approved itself by its effects.

It was true that cicatricial tissue might be the result of treatment by caustics, etc., but it might as often occur independently. He had seen cases that had never been treated at all, where it was abundantly developed and produced the characteristic incurving of the lids. Scarification he regarded as only of temporary value, for the relief of acute cases. One of the greatest advances in treatment was in the introduction of the canthoplastic operation, to relieve the globe from the constant pressure exerted by the orbicularis.

DR. NOYES would only say that ten years' pretty constant management of these cases had taught him that we do well not to over-treat them. Extremely various measures of treatment were more likely to do harm than good.

As to the relative merits of constitutional and local treatment, it would be a long step backward if we were to be limited to the former, as was almost the case only a few years ago. Doubtless the special attention

now bestowed on local treatment was in some degree a reaction from this. And a strong reaction was certainly needed, for even now it was not so rare a thing to find a patient, with simple inflammation of the cornea, who had been treated for it with mercury—than which nothing could be more fatal to recovery.

The meeting adjourned.

Special Reunion, March 17, 1871.

Dr. Alfred Underhill, Vice-President, in the Chair.

THE ELLIOT LIBRARY

Was opened to inspection. A few remarks were made by the Chairman, after which

Dr. John C. Peters, who had borne the chief burden of the work of obtaining subscriptions, etc., submitted a report of the chief matters of interest connected with the transfer of the library to the Association.

The amount paid for the library was $2,500.00, which was distributed among upwards of one hundred subscribers. The list of these included all the trustees and officers of the Library and Journal Association and 84 of its members; the President and 70 members of the County Society; the President, Vice-President, and 63 members of the Academy; the President and 46 members of the Pathological Society; the Ophthalmological Society and the Obstetrical Society, which had each contributed liberally in its collective capacity; the Faculty of the Bellevue Hospital Medical College; and 8 non-professional individuals, two of whom were among the heaviest contributors. The subscriptions ranged from $5.00 to $100.00, the greater part of them being between $20.00 and $50.00.

The speaker had found the duty of begging by no means an onerous one, in proof of which he read extracts from letters expressing cordial sympathy with the movement, and inclosing substantial evidences of good will. Some were ready to meet further calls if needed; others wished to double their subscriptions. No one had been asked to subscribe whose means did not amply warrant it; and the doctor was happy to say that of those who could and should have contributed, there were but one or two who failed to do so. On these he confessed that he had used every appliance to extract the money; he had tried the long and the short forceps, external, internal, and bimanual version, all without success, but with the result, he hoped, of leaving the patients pretty sore, and more to be pitied than the Association which failed of their contributions.

Dr. Elliot had been one of the founders of the Association and one of its active supporters, both by his influence and by his purse, often coming to its aid when it needed funds. It was eminently fitting that this library should stand as a monument at once of his scholarship and of his public-spirited beneficence, to be consulted by all who were emulous of the former, and to serve as a nucleus around which might cluster the gifts of those who would imitate the latter.

The Librarian (Dr. Purdy) said that the library was now very rich in works on Operative Midwifery and the Diseases of Women and Children.

It was voted that the thanks of the Association be tendered to Dr. Peters for his efforts; and that its thanks be presented in writing to those non-medical gentlemen who had contributed.

The Association adjourned, to examine, over its coffee and creams, the varied treasures of its new acquisition.

Hip Amputation.—This operation was first performed by Guthrie in 1812, and has since been repeated about twenty times.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 22, 1871.

Dr. A. L. Loomis, President, in the Chair.

APOPLEXY.

Dr. Finnell presented a specimen of apoplexy removed from a woman thirty-six years of age, who died a few hours after having been found insensible in her room. At the autopsy some lacerated blood-vessels were discovered in the left hemisphere of the brain, the effused blood filling both ventricles, tearing through the septum lucidum, thence into the fourth ventricle and into the spinal cord. The lesions were almost identical with those found in the late Prof. Elliot. Aside from this, there was a simple hypertrophy of the uterus, resembling very much a condition found after recent miscarriage. The woman, however, was menstruating at the time of death. Her youngest child was fifteen years of age. There were small fibrous tumors in the anterior wall, which in a measure accounted for the hypertrophied appearance. About a month before her death, she had fallen down a flight of stairs, since which time her neighbors stated she had never been well.

Dr. Janeway believed that the hypertrophied tissue of the uterus was due almost entirely to the incorporation of fibrous tissue in its substance.

GANGRENOUS TOES AND CAPILLARY BRONCHITIS.

Dr. Finnell exhibited also five or six gangrenous toes which separated themselves from the foot of a child three years of age while she was suffering from bronchitis. There was nothing unusual in the severity or duration of the attack to account for the lesion of the toes.

Dr. Lewis Smith asked if the heart had been examined, and being answered in the negative, thought that an embolus might have been the cause.

IMPERVIOUS STRICTURE.

Dr. Janeway presented the genito-urinary apparatus of a male patient admitted in the Charity Hospital in October last for uræmic coma. The previous history of the case was only partially ascertained by Dr. Maxwell. The patient had had several attacks of gonorrhœa at different times, and in August last began first to complain of difficult urination. After his admission an attempt was made to pass a catheter and failed.

At the autopsy, there were found in the lungs small lobular pneumonias, and in the centre of these small spots of gangrene. The kidneys were the seats of pyro-nephrosis, dilated ureters, and acute interstitial nephritis. The bladder contained but little urine, and was sacculated, one large narrow pouch being situated at the posterior part of the bladder. There was also an abscess of the prostate with gangrenous walls, and about the size of a walnut. The penis was quite long, six inches from the orifice of the urethra, and in the commencement of its spongy portion there was discovered an annular stricture, and within this was a thin but firm fibrous membrane, which, stretching from one side to the other, completely occluded the urethra at that point. Just above this, there was a small opening which led downwards an inch and a half, and was possibly one of the ducts of Cowper's glands. Although the posterior portion of this duct was quite dilated, there was no communication between it and the rectum or perineum. The points of interest in this case were, gangrenous processes in the lungs secondary to a gangrenous focus in the prostate, and a stricture completely impervious after death.

Dr. Janeway also exhibited a specimen of hematocele of the tunica vaginalis, an inch and a half in one direction and an inch and an eighth in another, and, lastly, he presented a specimen of typhlitis from an alms-house patient who had probably died of brain trouble. There were well-marked ulcers of the cæcum, and all the other usual signs of the inflammation in that locality. As the patient had considerable motor-paralysis, with the attendant defective sensibilities, it was presumed that the accumulation of the fæces was the exciting cause of the lesion.

ACUTE SPONTANEOUS OSTEO-MYELITIS.

Dr. Sands exhibited a specimen of osteo-myelitis, and remarked upon it as follows:—

The specimen is one of rare pathological interest, and, so far as my recollection goes, is the only one of its kind that has been presented to this Society. It illustrates what is called acute spontaneous osteo-myelitis of the femur. It was obtained at post-mortem examination from a boy 9 years old, one of five children, all healthy, he himself being remarkable for his activity. He had last August received a fall in the street, striking upon the buttocks. It is not known on which side the injury was received, but it appeared to be trifling; he was not laid up by it, and in the course of a day or two the lameness passed away. About a week preceding his illness he was very busy playing in the snow, building a snow fort, in which, after it was finished, he would remain for an hour at a time. On Saturday, Feb. 11th, while in the street with his mother, he fell suddenly upon his knees on the sidewalk, but not with much force; he recovered himself at once, and no special complaint was made afterwards. He was well up to the middle of the day following (12th), when he complained of pain in his left knee, and after dinner the pain increased in severity, but without being very intense. He was stripped and the knee rubbed, and he said it felt better. He passed a restless night, however, and on Sunday he complained still of pain in his knee, and on Monday Dr. Tucker, the family physician, was sent for. He saw him on that day. At that time the prominent symptom was still pain in the knee, and Dr. Tucker took this as the possible indication of acute inflammation of the hip-joint, and examined the patient very carefully with that end in view. The result was, however, negative. Passive movements of the limb could be made without pain, but the boy from the first was disinclined to make them of his own accord. Dr. Tucker from this felt suspicions that there might be some disease of the bones of the pelvis, as he detected some tenderness at the sacro-iliac junction of the left side, or that the great sciatic nerve might be involved. A dose of sulphate of magnesia was given and had its desired effect, after which morphine was administered during the night in $\frac{1}{10}$ of a grain doses, procuring sleep.

On Tuesday the patient was rather worse than better. The boy said the knee hurt him still, and to the symptoms already mentioned were added a somewhat rapid pulse (132), and a temperature of 103°. The boy was also exceedingly restless. Morphine was used on Tuesday and through Tuesday night, and as it appeared that the attacks of pain and general symptoms were aggravated at night, Dr. Tucker added quinine to the morphine.

On Wednesday the boy was about the same, perhaps a little worse, the tenderness being more diffused. Still there was no diagnosis made.

On Thursday morning Dr. Tucker was told that the boy had been delirious through the night. The temperature was 103, tongue a little dry, the pulse began to lose its force, was 140, and Dr. Tucker felt certain that there was grave mischief going on somewhere in the femur, hip-joint, or pelvis.

I saw the boy on Thursday night, four days after the attack commenced. At that time the general symptoms were much as I have already stated; temperature 103, pulse 132, quick, forcible and feeble, and the skin was moist, though not at that time nor during his whole illness was there any profuse sweating. The patient was then wandering in his mind, although his attention could be easily fixed. He complained at that time, and had for twelve hours previously complained of pain not only in the knee but also in the thigh. My attention was therefore directed to the thigh as the principal seat of the disease. I examined the case with great care, because of the almost total absence of physical signs. I examined the hip-joint and found there no signs of disease. I examined his pelvis, but there the tenderness over the sacro-iliac symphysis had disappeared; there was no sign of trouble in the iliac fossa; I examined the knee-joint, and there was no effusion or tenderness to be found. On examination of the thigh, while it seemed to be sensitive in all parts of the integument, moderate pressure caused him to wince, and very firm pressure caused him to cry out with pain. I asked him to move his limb. This he did. I mention this fact, because it is stated that a very significant symptom of osteo-myelitis is that the patient cannot raise the limb. The thigh was fixed and slightly rotated inwards. I could discover no sensible heat, and there was no tumor either of the leg or any part of the inferior extremity. There was some redness over the gluteal region caused by the previous application of iodine. I then resorted to the tape measure, and found on very careful measurement along the line of greatest circumference that the left thigh was an inch larger than the right. The pain was very intense and paroxysmal, and altogether was making very serious demands on the little patient's nervous system. The conclusion arrived at was that the phenomena were very evidently of a symptomatic character, and putting the facts together and comparing them with a knowledge of the disease from my reading, I expressed the opinion that it was a case of acute osteo-myelitis of the femur of a spontaneous origin. This was not a very positive diagnosis, but I was willing to trust its verification to the future development of the symptoms.

On Friday the temperature rose, the pulse fell in force still more and became more rapid, the delirium became incessant, and it was difficult to fix his attention. I was asked to see the patient again, and Dr. Parker was added to the consultation. At this time the local symptoms had changed somewhat; although the thigh was not œdematous, it was considerably swollen. We all agreed that the child's chances of life were exceedingly small, and the prognosis was unhappily verified in a very short time, as death occurred at six o'clock on Sunday morning. He was conscious a few minutes before his death, and was able to recognize his mother. He did not die then of coma, neither did he have any of the signs of pyæmia, but the nervous system became completely overwhelmed.

At the autopsy the only part of the body examined was the femur, but the appearances of this bone sufficiently explained the nature of the trouble. The left thigh was not measured just before death, but after death it was found to be two inches more in circumference than its fellow. The dissection was made by an incision on the outer aspect of the limb. The muscles were somewhat infiltrated, but were otherwise healthy. There were no appearances of inflammation until the periosteum was reached. The outer surface

of this membrane, throughout nearly the entire length of the shaft of the femur, was surrounded with pus, accumulated in greatest quantity at a point below, and a point above on the outer aspect, and behind the superior extremity of the bone underneath the quadriceps femoris. So far as could be ascertained, there was no perforation of the periosteum. This membrane was the seat of an acute œdema, and separated more readily from the subjacent bone than it should. On raising it from the bone there were small deposits here and there of pus, lying between what should be the attached surface and the bone, but these deposits were not so much in quantity as those on the external aspect of the membrane. The hip and knee-joints were perfectly healthy.

On section of the bone it was at once seen that the focus of the disease was in the interior. The whole of the marrow was found to be hyperæmic. In some places it appeared very soft and intermingled with patches of a whitish-yellow color, which were due to diffluent purulent material. It appears that this infiltration extended up towards the epiphyses, though it was not traced through the epiphysial line in either direction. There is no evidence to show that the extension of the disease from within outwards has been one of continuity. There are no openings in the bone or periosteum. So far as I have examined, the inflammation seemed to have occurred by contiguity.

I took the specimen to Dr. Edward Curtis, who carefully examined it by the microscope, and sent me the following note in regard to the appearances:

"On section of the bone the marrow throughout its whole extent appeared redder than normal; that in the medullary canal of the shaft being of a darker shade than the marrow of the cancellated tissue of the extremities. In the medulla of the shaft, especially in the upper half, were numerous foci where the substance was of a pale cream-yellow color, like pus. This material, on microscopic examination, was found to be mainly composed of closely-aggregated, small, roundish cells, smaller than pus-corpuscles, pale and very finely granular, without visible nuclei, imbedded in an extremely viscid granular substance. Very little of the usual fat of the medulla was present in this yellow material. The bright red pulp of the marrow of the shaft presented a much smaller proportion of similar cells to those just described—a greater amount of fat and granular matter, and was gorged with blood. In the cancellated tissue of the extremities the marrow was hyperæmic, but the examination failed to detect any abnormal cellular elements."

In conclusion, he remarked that he had never met with a case of spontaneous osteo-myelitis before, but from the writings of Chassaignac and others he had always regarded it a well-recognized disease.

Dr. Buck asked if in those cases where amputation could not be performed, it would not be well to make a deep longitudinal incision into the periosteum of the affected bone.

Dr. Sands thought that such a procedure would tend to add to the intensity of an already severe inflammation, without the hope of any relief to the origin and seat of the disease. At the time when the disease was at its height the products of inflammation had hardly accumulated in the cancellous structure.

Dr. Buck imagined that the hemorrhage might help materially to modify the force of the internal inflammation of the bone.

Dr. Sands remarked that the disease sometimes terminated by perforation of the bone, and a discharge of the marrow contents—but in the majority of severe cases the intensity of the pain wore out the patient.

Dr. Messinger remarked that the horn distemper among the domestic animals, which he thought resembled osteo-myelitis, was relieved by boring to the pulp. He had quite frequently witnessed the operation when a boy in the country.

Dr. Sands stated that the local treatment in his cases consisted of the free application of iodine, as recommended by the authorities. It had no effect in arresting the progress of the disease.

Dr. Van Geison thought that inasmuch as nature sometimes cured these cases by perforation of the bone, it might not be amiss to take a hint in the direction of such a practice.

Dr. Hamilton was not willing to accept the diagnosis without question. He was inclined, from the history of the case and the appearances of the bone, to differ from Dr. Sands, in that it was primarily a case of osteo-myelitis. The degree of brilliancy, as shown in the specimen, was not infrequent in the bones of children. Here was no suppuration, carnification, or gangrene of the medullary tissue, and the case seemed to him to be one in which death was principally the result of diffuse periostitis.

Dr. Sands replied that the two morbid conditions, periostitis and osteo-myelitis, were almost always found conjoined, the inflammatory process being seldom, if ever, limited to the marrow. The point to be settled in this case was the starting-point of the morbid process. The degree of redness in the specimen, in consequence of the time that had elapsed since its removal, was not so marked as at first. There was pus removed from the shaft in quantities of three or four drops at the time, and the absence of pus-corpuscles in the microscopical examination did not invalidate the fact that there was pus. The appearances of the marrow had changed considerably with the age of the specimen, but still the difference between certain portions was quite marked. The distinction in symptoms as to the primary cause of the disease depended mainly upon the presence or absence of swelling in the early period of the disease. Pain exists in both cases, but it is peculiar in osteo-myelitis. In the latter the pain precedes the swelling for many days, and in the present case it was observed that pain had existed from Sunday until the following Thursday, before an appreciable swelling was noticed.

Dr. Hamilton thought that the suppurative action in a case of primary osteo-myelitis should have preceded the same action in the periosteum, in which case the marrow, notoriously obnoxious to such an action, should have shown a proportionately greater amount of pus. On the contrary, the predominance of the suppurative action was shown in the periosteum.

Dr. Buck believed that the absence of swelling at the outset was the element in the case upon which the diagnosis of Dr. Sands was founded. In acute periostitis of the femur, for instance, when it is seen early, the swelling is a very marked symptom.

Dr. Hamilton asked if Dr. Sands had not seen suppuration, carnification, and gangrene well marked much earlier in the disease than in the case presented.

Dr. Sands replied that he had in the cases of exposed ends of stumps, but under such circumstances the conditions were peculiarly in favor of rapid pathological changes.

Dr. Hamilton recollected founding the diagnosis of a case upon the presence of the abruptly outlined œdema of the limb as described by some authors. In Dr. Sands' case no marked œdema seems to have existed.

Dr. Sands was doubtful if this œdema in any shape was a sign of osteo-myelitis. It was only an accidental complication, and met with in those cases in which the disease had passed from the medullary canal to the more yielding tissues surrounding the bone.

DETACHMENT OF VITREOUS HUMOR.

Dr. Noyes showed two cases of detachment of the vitreous humor—one of traumatic origin, the other without a history. The first had the following history:—A young man, aged 20, in firing a gun, felt that his right eye was wounded, and that the injury occurred from a fragment of exploded cap. Soon after inflammation developed, the eye became cataractous, the lens underwent considerable absorption, and the capsule became perforated and ragged. This state of things continued until the other eye suffered by sympathy, and being unable to use either, he presented himself to Dr. Noyes for treatment. On inspection the place where the cornea was perforated was found not more than a line and a half from its margin on the inner side. The iris was adherent to the capsule of the lens, and only an indistinct illumination of the interior of the eye could be obtained by the mirror of the ophthalmoscope. Upon careful examination there was to be found in the interior a membrane stretching across the cavity of the fundus, in a way which suggested the occurrence of sub-retinal effusion; and when the patient looked strongly downwards, Dr. N. could catch, through one of the rifts in the capsule, the reflection of a bright surface, which seemed to be that of a cap. He called the attention of several of his colleagues to this condition, but they could not convince themselves that what had been seen was a foreign body, and the matter was left to the responsibility of Dr. Noyes, whose opinion as to the necessity of extirpation was endorsed, and the operation advised in case he was sure of his point. The operation was accordingly performed. The specimen proved that the cap entered the cornea and lens, struck the fundus of the eye posteriorly, bounded forward, and lodged just behind, and to the left of the lens. The vitreous was separated from the fundus, except at a point where the cap struck, being adherent there, and then radiated in the form of an umbrella-like expansion toward the ciliary body. The substance of the vitreous had changed from a delicate jelly-like body to a quantity of membranous connective tissue. The retina was intact, except where it had separated from the choroid as the result of post-mortem changes. The foreign body was readily perceived in the situation already referred to.

Dr. Noyes presented the second specimen, which had seemingly been the result of a totally different cause. There was a staphyloma of the cornea, and the vitreous humor had been absorbed in the posterior two-thirds, a degenerated mass only remaining attached to the ciliary body.

OVARIAN CYST.

Dr. Briddon presented a multilocular ovarian cyst, for which he was indebted to Prof. C. A. Budd. It was removed on the Monday previous by Dr. Marion Sims. The patient was thirty years of age, unmarried, and the tumor was diagnosed by Prof. Budd four years ago. It was then quite small, occupying the pelvic cavity to the left of the uterus, and had not been interfered with from that time until the operation, with the exception of the introduction of a fine explorative canula. It was removed by a short incision (four inches). There were no adhesions; Spencer Wells' trocar was introduced; three quarts of viscid fluid drawn off. The hand was then introduced into the abdominal cavity, the anterior cysts broken down, and the pedicle, which was a long one, was secured by a clamp on the outside of the wound, and at its lower margin. The wound was closed with silver wire sutures. Since the operation the patient has done well, suffering only from irritation of the bladder, caused, in all probability, by the traction of the pedicle upon that organ. He also exhibited a specimen of marked calcification of the aorta, removed from a coroner's case, by Dr. Beach.

STRICTURE TREATED BY INTERNAL RUPTURE.

Dr. Weir exhibited a specimen showing the effect of the rupture treatment of stricture of the urethra. A man, aged thirty-six, had stricture for an indefinite number of years, and also several attacks of retention. On his entrance into St. Luke's Hospital recently, a stricture was discovered of an inflammatory nature in the sub-pubic curve, and complicated by several false passages. These latter being discovered on the introduction of an instrument, the penis was drawn upwards over the staff, when its extremity was engaged without difficulty. The operation of divulsion was then performed by Voillemier's instrument. When the standard was being forced home, the patient jumped, and at the same time complained of pain at the seat of the stricture. He died in the course of twenty-four hours, comatose, the result of an over-dose of opium, he having been a confirmed opium eater. The bulb of the urethra, on post-mortem examination, was found much distended with blood, while the membrane of the tube was ruptured at two distinct points. The guide, by the sudden jerk of the patient, was bent to one side.

Dr. Sands remarked that the instrument had evidently produced a good deal of extravasation and laceration.

Dr. Weir thought that the reason for this was, that, in accordance with the suggestion of authorities, he had used a very large instrument. From his experience in this case he was in favor, as heretofore, of employing the smaller ones.

Dr. Sands referred to a case occurring in a neighboring hospital where a stricture was ruptured by a No. 3 Holt's dilator. The patient died comatose on the second day, caused by the existence of kidney disease.

Dr. Briddon remarked that the operation of divulsion was generally thought to be unjustifiable when there was kidney disease present.

Dr. Janeway had seen pyæmia, after this operation, cause death in one case in which there were only slight lacerations of the urethra.

Dr. Mason remarked that he had used Holt's dilator very frequently, and he had seen it used in a number of cases besides, and in only one instance did he know of any injury as the result, and that was a slight urinary infiltration.

Dr. Briddon had employed it in a number of cases, and had always found it attended with more or less hemorrhage.

Dr. Weir had examined a number with the microscope, and had found that there had been more or less of a rupture in every case, principally on the inferior portion, but very seldom at the sides. This statement was made to rebut the oft-repeated one across the water, that the instrument dilates simply.

Dr. Mason remarked that hemorrhage was a very frequent attendant of the operation, and he had seen one case in which it was necessary to inject a solution of persulphate of iron to arrest it.

IMPACTION OF MOLAR TOOTH IN LEFT BRONCHUS, ETC.

Dr. Weir presented a second specimen, showing the impaction of a greater portion of the molar tooth in the first division of the left bronchus. The patient from whom it was removed was an inmate of St. Luke's Hospital. Some months ago, he sustained a compound fracture of the lower jaw, the result of a blow from an axe. The ordinary treatment was employed, but the union was very imperfect, owing to the impaction of some dead bone. It being thought neces-

sary to remove the dead bone referred to, the patient, a stout pale Irishman aged forty, was etherized Jan. 3. He took the ether very badly. Enlarging the fistula which led to the dead bone, it was discovered that a sequestrum was attached to a molar tooth. The tooth was seized, and, in the attempt to withdraw it, the patient was seized with a vomiting-fit, and in the struggle the tooth being dislodged, disappeared. The material vomited was in the confusion thrown away by the attendant. Not being satisfied as to the whereabouts of the tooth, the house-surgeon was directed to watch the patient, and to have the fæces thoroughly examined. This was done and with no result. There was no marked coughing, or evidence of irritation about the chest when the tooth disappeared. For some days after, the patient did not do very well, but this circumstance was attributed to the amount of blood lost. In the course of two or three days he had a slight attack of bronchitis, but on examination nothing was found. Under the usual treatment the symptoms abated. Nothing of special note occurred in the case until the tenth day after the operation, when the house-surgeon reported that with a persistent bronchial irritation, the patient had very feeble respiration of the left side. At times the inspiration over the left lung would appear to be suddenly checked, although expiration seemed at all times easy. A consultation having been called on another case, the gentlemen present saw this one also. On examination no satisfactory results were obtained, save that the existence of pneumonia was recognized, the only thing peculiar about the case being a heaving effort at respiration to which attention was called by Dr. Sands. It was deemed advisable to perform tracheotomy as an explorative operation, and then attempt to dislodge the tooth if it could be reached farther down, thus repeating an operation of a similar nature so successfully performed by Dr. Buck. The patient, however, refused to have the attempt made, and died unrelieved.

At the autopsy the left lung was found the seat of red hepatization, and in the first division of the bronchial tube was found a decayed molar, the upper portion of which was hooked into the mucous membrane in such a manner as to preclude the possibility of its extraction from above in case the operation had been performed. About an inch below the point where the tooth was found, and adjoining the pleura, was an abscess filled with broken-down tissue, the whole being about the size of an English walnut; another, also of the same size, was found deeper in the substance of the lung.

ANEURISM OF ASCENDING AORTA—THE SAC TRAVERSED BY SUTURE PINS, ETC.

Dr. Buck exhibited a specimen of aneurism of the ascending aorta, which presented itself externally, emerging from the thorax, between the cartilages of the second and third ribs, near the right margin of the sternum. The patient was an Irish laborer, thirty-seven years old. He was admitted into St. Luke's Hospital, February 1, and his statement was, that in the month of November previous, the tumor appeared upon the surface, and that his attention was particularly directed to it at first, from the fact that he had suffered for several weeks from palpitation, particularly after making any exertions. He had, however, continued at his work to within a month of his admission. He was generally in a fair condition; his respiration was, to a certain extent, difficult, and his pulse ranged from 80 to 90. A tumor was found in the situation previously described. It did not, as is usual, present itself directly forward at a right angle with the surface upon which it rested, but obliquely; it seemed to have emerged in a slanting direction from right to left, the long axis of the tumor being in a line drawn from the left sterno-clavicular articulation, while the left side was gradually sloping off in the surrounding parts, the right side being shelving and abrupt. The pulsation was very marked and forcible, but no abnormal sound could be heard, nor was there any difference in the pulsations of the radials. The skin was freely movable over the whole tumor, and could be gathered up in folds between the thumb and finger. The patient was directed to keep his bed, which he did, up to the 7th of February, when an operation was performed for his relief. Having, in a previous case, inserted some silk ligatures into an aneurism in a similar locality, with the idea of bringing about coagulation, etc., and having failed to produce the desired result, Dr. B. thought that the same principle of treatment might be carried out by the use of different means. Accordingly, in the present case, instead of threads, he, on the occasion referred to, introduced four suture pins, two and five-eighths in length. These were inserted through the circumference of the tumor, in an oblique direction, so as to occupy at least a full inch and a half, perhaps nearly two inches of the cavity, and being about that distance apart in the interior. On inserting the upper pin rough bone was encountered, which was, however, readily avoided by changing the direction of the pin.

On the following day no perceptible change had taken place—no discoloration of the surface. But with a view of avoiding suppuration of the tracks of the pins, the first pins were withdrawn, and an equal number inserted at intermediate points. No hemorrhage followed the withdrawal of the first pins. The second set of pins were left in twenty-four hours; then a slight blush of redness appeared over the summit of the tumor. The second set of pins were then removed. At the time the first pins were inserted the tumor was increasing, and he had occasional attacks of coughing and dyspnœa. Aconite was administered, which had the effect of markedly decreasing the pulse. On the 14th of February, five days after the removal of the second pins, a third set were introduced in precisely the same manner, only they traversed the tumor in its long axis. These remained in place until the 16th, when they were removed. There was no hemorrhage on their removal, except from one opening. The tumor, by this time, had considerably increased in size, the redness had spread over the whole surface, causing it to assume more and more a condition of inflammation. On the 17th the tumor had, besides increasing gradually, presented a bulging prolongation, which seemed to threaten rupture externally. This, however, fortunately did not occur; but on the afternoon of that day the patient complained of a sudden feeling, as if something had given way inside of him, and described the sensation as that of blood trickling in his chest. From this time he gradually sank, and died on the 18th. At the autopsy, in cutting through the pectoral muscle, a large collection of clotted blood was encountered. Everything connected with the aneurism, including ribs and sternum, as well as the heart and lungs, was removed, and the specimen carefully dissected. The heart was found much dilated; the aorta throughout its whole extent was also dilated, and its inner surface was everywhere coated with atheromatous patches. The communication between the artery and the aneurism was by a button-hole slit on the anterior aspect of the ascending aorta. The cavity had not been exposed, inasmuch as it was the intention of Dr. Buck to have it carefully prepared, but as far as could be seen there were no fibrinated clots.

The conclusion to which Dr. Buck had arrived, from a study of the operations on this case, and the one in

which simple silk sutures were employed, was that such procedures, in view of the liability to inflammation, were inadmissible, especially in the arteries near the heart. He referred, in this connection, to a case of aneurism the size of half an egg, situated in the temporal region, which was treated by suture pins, without effect, but afterwards effectually cured by galvano-puncture.

AMPUTATION OF ARM AND SCAPULA FOR COLLOID OF SCAPULA.

Dr. Hamilton exhibited a scapula, which he had removed by operation, in connection with an arm. The following was the history of the case:—

In September, 1864, George Hanna was hit upon the back, near the lower angle of the right scapula, by a hard lump of earth, causing severe pain for several hours. Two weeks later the same point was again injured by the chafing of a rope in supporting a bale of hay, and on the following morning he noticed a very hard swelling at the point of injury, of the size of a hen's egg. The tumor continued to increase in size, unaccompanied with discoloration, until the 15th of February, 1865, when it was as large as a quart bowl. At this time the tumor, with a portion of the anterior border of the scapula, was removed by the knife. The wound healed in 28 days, and his health remained as good as before the operation. January, 1868, after exposure during very inclement weather, the tumor began to appear again, and on the 12th of February following, it was again removed by the knife, with a small portion of the scapula. Before this wound had closed a swelling occurred upon the upper arm, which being opened, gave exit to a large quantity of gelatinous matter; and at the same time the tumor began to reappear over the scapula. From September, 1868, to July, 1869, the tumor was treated by setons and by escharotics, such as nitric acid, chloride of zinc, carbolic acid, etc. In July, 1869, another attempt was made to remove the tumor with the knife, but the bleeding was so free as to cause an apprehension that the patient would die in the operation, and no portion of the tumor was removed. From this time the mass continued to grow and to extend along the back and arm; occasionally elevated points would open spontaneously and discharge a gelatinous material, sometimes a serous fluid, and along the margin there were points where the fluid discharged appeared like pus.

I operated upon Mr. Hanna at his residence, at Barton, N. Y., December 12th, 1870, assisted by Dr. Damainville, of this city, Dr. Johnson, of Waverley, and others.

As simple exsection of the scapula was out of the question, it was necessary to amputate the arm as well, the disease extensively involving the latter. The operation was accompanied by no extraordinary difficulty, and he was surprised to find how completely the arteries were controlled by pressure made by the finger upon the subclavian. He removed at first a large portion of the mass situated upon the posterior and upper portion of the arm, then carrying the incision upwards and along the base of the scapula, it was necessary to remove all the integuments at the base of that bone. There was no difficulty in getting under it. He then discovered a mass of disease underneath the subscapularis muscle, which was dissected and removed. The large wound of the back was covered by a flap from the anterior and inner aspects of the arm as far as its middle. The Doctor heard from the patient a few days ago; the wound had closed, except at a small point, and he was able to walk about. There had been no sloughing along the line of the flap. Dr. H. believed the tumor to be colloid in character.

There being no other specimens, the Society went into Executive Session.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from April 19th, 1871, to May 4th, 1871, inclusive.

Mills, Madison, Surgeon.—By S. O. 86, Headquarters Dept. of the East, April 26, 1871, assigned to duty as Post Surgeon at Fort Columbus, New York Harbor.

Irwin, B. J. D., Surgeon.—By S. O. 77, Headquarters Dept. of the Missouri, April 27, 1871, assigned to duty at Fort Riley, Kansas, as Post Surgeon.

Sternberg, G. M., Asst. Surgeon.—By S. O. 86, C. S., Headquarters Dept. of the East, relieved at Fort Columbus, New York Harbor, and to report for duty to the commanding officer, Fort Hamilton, N. Y. H.

Winne, C. K., Asst. Surgeon.—By S. O. 90, Headquarters Dept. of Dakota, April 27, 1871, when relieved at Fort Ripley, Minn., by A. A. Surgeon Lord, U. S. A., authorized to avail himself of the leave of absence granted him in S. O. 23, C. S., Headquarters Mil. Division of the Missouri.

Brewer, Jno. W., Asst. Surgeon.—By S. O. 68, Headquarters Dept. of the Missouri, April 15, 1871, assigned to duty at Fort Larned, Kansas.

Middleton, P., Asst. Surgeon.—By S. O. 86, Headquarters Dept. of the South, April 20, 1871, assigned to duty at Elizabethtown, Ky., as Post Surgeon.

Miller, G. McC., Asst. Surgeon.—By S. O. 88, Headquarters Dept. of the South, April 21, 1871, assigned to duty at Montgomery, Ala.

Medical Items and News.

John Oppolzer, the famous surgeon of Vienna, died on the 16th ult. He was born at Gratzen, in Bohemia, in 1808. In 1838, after completing his medical studies in the University of Prague, he entered on private practice in the town with extraordinary success. In 1841 he was appointed physician to the Prague Hospital. After acting for some time, at the request of the King of Saxony, as director of the hospital at Leipsic, he accepted the professorship in the University of Vienna, which he retained till his death.

Dr. A. K. Hoffman.—Died at Sing Sing, Westchester County, May 5th, Dr. Adrian K. Hoffman, aged 74 years. Dr. Hoffman was the father of the present Governor of this State. He was a successful and distinguished physician, and enjoyed, during a long life of usefulness and devotion to his profession, the esteem and respect of his fellow-men to a most eminent degree.

Medical Department of the University of Vermont.—Dr. A. F. A. King, Assistant Lecturer on Obstetrics in the National Medical College, at Washington, D. C., fills for this year the chair of Prof. Dunster, in this institution. The department of Surgery will be filled for the first three weeks by Dr. Benjamin Howard, of New York, and for the last three by Dr. A. B. Crosby.

The American Medical Association.—The Association, at the late meeting held at San Francisco, Cal.,

awarded the first prize to Dr. T. R. Taylor, of Sacramento, for an essay on the "Chemical Constitution of Bile." The second prize to Dr. Benjamin Howard, of New York, for an essay on "A Direct Method of Artificial Respiration for the Treatment of Persons Apparently Dead from Suffocation by Drowning, or from other Causes." Dr. D. W. Yandell, of Kentucky, was elected president for the ensuing year. Dr. Henry A. Martin, of Boston, Chairman of the Committee on Vaccination, was removed for using insulting language towards the Association, in an article on vaccination which he had published in a homœopathic journal.

A Museum of Pathological Anatomy.—Dartmouth College has been presented with $10,000 by E. W. Stoughton, Esq., of New York city, to found a Museum of Pathological Anatomy in the Medical Department.

Death of an Aged Indian Woman.—Me-no-see-how, an Indian woman, aged 115 years, died in Michigan April 1st. She, with her three sons, was at the battle of Tippecanoe.

Prof. Geo. T. Elliot.—The Faculty of the Bellevue Hospital Medical College have put up, in the room of the Medical Board of Bellevue Hospital, a life-like portrait of the late Prof. George T. Elliot, M.D.

The Use of Carbolic Acid.—Dr. J. R. Wolf, Ophthalmic Surgeon to the Aberdeen Royal Infirmary, claims priority in the use abroad of carbolic acid as a dressing for wounds.

Ligature of Right Subclavian Artery.—Mr. John Gay tied the right subclavian artery, March 28th, 1871, at the Great Northern Hospital, London, for double subclavian aneurism in a man about 40 years of age. The artery was tied in the third part of its course, at the outer border of the scalenus anticus muscle. No difficulty whatever occurred during the operation. Among the visitors, there were present Mr. Skey (the consulting surgeon to the hospital), Sir W Fergusson, Mr. Henry Smith, Mr. Mason, Mr. Savoy, Mr. Poland, Dr. C. Smith, of New York, and others.—*British Medical Journal.*

An Old Living Man.—The oldest man in Indiana lives near Gosport, in Owen County. His name is Ross, and he is between 110 and 111 years old, hale, hearty, and vigorous, and in full possession of his mental faculties.

St. Thomas' Hospital, London.—Dr. Liebrich, the distinguished ophthalmologist, of Paris, has been appointed ophthalmic surgeon and lecturer at St. Thomas' Hospital.

The Effects of the Siege of Paris.—Dr. Brierre de Boismont, in charge of an Insane Asylum at the further end of the Faubourg St. Antoine, Paris (*British Med. Journal*) writes to Dr. Forbes Winslow, of London, as follows, as to the effect of the siege on the general mortality of Paris: The death rate rose from 1,300 to 1,400 (the ordinary weekly average), to 4,670, for this number of persons died in Paris during the last week of the siege.

Death of the Vice-President of the British Medical Assoc'n.—John Addington Symonds, M.D., F. R. S. E., Vice-President of the British Medical Association, died Feb. 25, 1871, at the age of sixty-three.

A New Southern Medical Journal.—A new monthly medical journal was started in January last, at Atlanta, Georgia, by Drs. T. S. Powell and W. T. Goldsmith.—The March number is creditably got up, with leading articles by the following practitioners of that State: Drs. Charles Pinckney, R. B. Anderson, and Robert Battey.

New York Dispensary for Diseases of the Skin.—This Dispensary, located at 101 East 30th Street, cor. Fourth avenue, is in good working order, and under the immediate supervision of Drs. Henry G. Piffard and Louis F. Sass, attending surgeons. The First Annual Report gives the following exhibit: During the year 1870 there was received and placed under treatment a total of 315 cases, exclusive of the 19 treated during the previous year.—Of these, 186 were males, and 129 females; 98 were natives of the United States, and 217 were of foreign birth. The *Consulting Surgeons* are: Drs. Henry D. Bulkley, Austin Flint, F. J. Bumstead, Wm. H. Draper, John T. Metcalf, and Willard Parker.

John Hunter's Death.—Dr. John Chapman, Phys. to the Farringdon Dispensary (*London Medical Mirror*), while alluding to mental emotion as a notorious exciting cause of angina pectoris, mentions the fact that John Hunter lost his life, as is well known, by an attack of the affection brought on by a fit of anger when he was at St. George's Hospital, where he expired.

Something about Teas.—The difference in the quality of the teas depends partly on the district in which they are grown, and partly on the season when they are gathered, as the young leaves of the spring are of much finer flavor than the full-grown leaves of the summer, or the still coarser ones of the autumn. The plants produce each, on an average, about half a pound of the dried leaves in the course of the year.—*Dr. Speers, China and United States.*

Abuse of Alcohol among Women.—The *Practitioner*, for February, in an article on the use and abuse of alcohol by women, reckons up the amount of spirits habitually consumed by English girls of the middle and upper classes, and finds that in the forms of beer, sherry, champagne, &c., the daily average is from two to three ounces of absolute alcohol. The disastrous consequences of this excess are dwelt upon at length, and the writer concludes by a suggestion that all alcoholic beverages be avoided at evening parties, where, it appears, ladies are at present in the habit of drinking more champagne than the gentlemen.

Compensation of Navy Surgeons.—The pay of Assistant Surgeons and Surgeons is established by Act of Congress, approved on the 15th of July, 1870, and is as follows:—

Fleet Surgeons, $4,400.

Surgeons—On duty at Sea—For first five years after date of commission as surgeon, $2,800; for second five years after date of commission as surgeon, $3,200; for third five years after date of commission as surgeon, $3,500; for fourth five years after date of commission as surgeon, $3,700; for twenty years and upwards after date of commission as surgeon, $4,200. On other duty—For first five years after date of commission as surgeon, $2,400; for second five years after date of commission as surgeon, $2,800; for third five years after date of commission as surgeon, $3,200; for fourth five years after date of commission as surgeon, $3,600; for twenty years and upwards after date of commission as surgeon, $4,000. On leave or waiting orders—For first five years after date of commission as surgeon, $2,000; for second five years after date of commission as surgeon, $2,400; for third five years after date of commission as surgeon, $2,600; for fourth five years after date of commission as surgeon, $2,800; for twenty years and upwards after date of commission as surgeon, $3,000.

Passed Assistant-Surgeons.—On duty at Sea—For first five years after date of appointment, $2,000; for second five years after date of appointment, $2,200. On other duty—For first five years after date of appointment, $1,800; for second five years after date of appointment, $2,000. On leave or waiting orders—For first five years after date of appointment, $1,500; for second five years after date of appointment, $1,700.

Assistant Surgeons—On duty at Sea—For first five years after date of appointment, $1,700; for second five years after date of appointment, $1,900. On other duty—For first five years after date of appointment, $1,800; for second five years after date of appointment, $2,000. On leave or waiting orders—For first five years after date of appointment, $1,000; for second five years after date of appointment, $1,200.

The Use of the Turkish Bath in Albuminuria.—Edwin Morris, M.D. (*British Med. Journal*), says that his experience in the treatment of Bright's disease is, that no medical agent we employ has so great power of arresting the complaint or of prolonging life as the Turkish bath during the progress of this intractable disease of the kidneys. The only objection raised against its use by the patient is the length of time required for a complete bath—at least two hours being necessary for this process; and when this has to be repeated two, or even three times during the day, it becomes a heavy tax upon means and shortens business hours. This objection may, however, be overcome in some measure, by taking the bath early in the morning and the last thing at night.

If it were necessary he could give the details of many cases similar to the case published, wherein the daily use of the Turkish bath was equally efficacious.

Transactions of the American Ophthalmological Society.—Dr. Henry D. Noyes, Recording Secretary of this Society, has copies of the Transactions of the Seventh Annual Meeting, which may be procured at his residence, No. 73 Madison Avenue. Those interested in ophthalmology will do well to get this valuable volume.

New York Academy of Medicine.—Drs. Thomas K. Chambers and W. H. Dickinson of London, Carl Rokitansky of Vienna, Virchow of Tübingen, and Nelaton of Paris, were elected corresponding Fellows of the Academy. Drs. Henry I. Bowditch of Boston, Geo. B. Wood and Alfred Stillé of Philadelphia, were elected Honorary Fellows.

New York Pathological Society.—Dr. R. C. M. Page has been elected a member of the New York Pathological Society.

The New York Dispensary, corner of White and Centre Streets, has recently enlarged its sphere of usefulness by establishing separate departments for the treatment of diseases of the eye and ear. The class of eye-diseases is under the care of Dr. Richard H. Derby and Dr. Charles S. Bull, the former of whom is on duty every Monday, Wednesday, and Friday, from 2 till 3 o'clock, P.M., and the latter every Tuesday, Thursday, and Saturday, at the same hour. The ear-class, also at the same hour, is in charge of Dr. George B. Pomeroy.

Medical Graduates in the United States.—The number of medical graduates in the medical colleges of this country for 1871 amounts to about one thousand and fifty, of which New York City gives between three and four hundred.

Chloroform Consumed in this Country.—Dr. Edward R. Squibb, Brooklyn, N. Y. (*N. Y. Medical Journal*), estimates the total quantity of chloroform sold for consumption in the United States, during 1870, at eighty thousand pounds. About one-third of this amount, say twenty-six thousand pounds, is used for anæsthetic purposes by inhalation. Next, it may be estimated that two avoirdupois ounces, or one and a half fluid ounces, are used and wasted for each administration, and this would give two hundred thousand administrations as a very extravagantly safe estimate for the whole country during 1870.

This writer puts down one death in five thousand eight hundred and eighty-two administrations in this country. No chloroform has been imported into this country, or exported from it, within several years past, and there are but about four original sources of supply.

The First Resection of the Hip-Joint.—To Anthony White, of Westminster Hospital, is due the merit of having really made the first resection upon the living subject. The head of the bone was carious, and rested upon the dorsum ilii, and was removed, together with the trochanter. The patient, a boy of eight years of age, recovered. Dr. Hewson, of Dublin, repeated this operation in 1823, losing his patient. After this date the operation for coxo-femoral resection was disregarded until Fergusson, of King's College Hospital (1845), brought it into notice again.

The Brooklyn City Hospital.—The Report of this Hospital for the year 1870 gives the following exhibit. Eight hundred and fifty-eight cases were treated in the medical department, of which 530 were cured and 110 relieved. In the surgical department 1073 cases were treated, and 696 cured; 124 were relieved. There were 113 cases of intermittent fever, 20 cases of pneumonia, 31 of acute rheumatism, 23 of chronic rheumatism, 29 of remittent fever, 14 of relapsing and 10 of typhoid fevers. In the surgical section there were 38 cases of bubo-chancroidal, 19 of epididymitis, 66 of chancroid, 14 of chancre, 51 of gonorrhœa, 23 of stricture, 34 of contusion, 11 of fracture of the tibia, and 6 of compound fracture of the tibia. The total number of patients treated in the Orthopædic Infirmary connected with the Hospital, since its foundation June 15, 1868, amounts to 466.

The medical officers are as follows: *Physicians*, Drs. James Crane, Robert Ormiston, H. S. Smith, and A. Nelson Bell. *Surgeons*, Drs. James M. Minor, Daniel E. Kissam, J. C. Hutchison, George Cochran, and S. Fleet Spier. *Resident Physicians and Surgeons*, Drs. Lewis Balch, Joseph R. Raymond, William Burt, and John D. Rushmore. The Trustees hope, at no distant day, to be able to erect a Woman's and Child's Hospital, and a Hospital for Invalids and Incurables, in connection with the main hopsital.

A New Use for Bromide of Potassium.—Dr. J. Y. Dale, of Lemont, Pa. (*The Georgia Medical Companion*), finds that bromide of potassium will prevent the nausea following the use of opium.

Dilution of Lymph.—Dr. J. P. Baker, in a communication to the *British Medical Journal* on vaccination, observes that the vaccine lymph is preserved by glycerine, and that it may be diluted much more than ten times without perceptible loss of energy.

New Books.—During the year 1870 there were 3,377 new books and 1,279 new editions issued in Great Britain alone, besides 426 of American origin; of these medicine and surgery supplied 106 new books, 49 new editions, and 38 American importations; in all 193 new professional works.—*Med. Press and Circular.*

Treatment of Acute Rheumatism.—Dr. J. T. Davis,

Laconia, Ind. (*Cin. Med. Repertory*), asserts that rheumatism is successfully managed in our western country by resorting to quinia sulph. as the basis of treatment.

Stricture of Rectum.—Dr. S. S. Cartwright, of Roxbury, Delaware County, N.Y., reports a case of stricture of the rectum, in which, for fifty-six days previous to death, there had been no passage from the bowels. The patient was a widow, aged sixty. The stricture was cancerous.

Puerperal Diseases.—Of 190 fatal cases of puerperal diseases, occurring under the observation of Hervieux, 119 were primiparæ, and 71 multiparæ.

Laceration of the Perinæum.—Dr. Wm. Goodell, Philadelphia (*Am. Journ. Med. Sciences*), remarks that Denman, Velpeau, and Leishman contend that the first allusion to this accident is found in a fragment attributed to Eros, who flourished in the thirteenth century. He adds that the arguments of these medical men fall to the ground, because Hippocrates, Aristotle—350 years B.C.—Rufus Ephesus, and Celsus, who lived in the first century, allude to this laceration. Galen—150 A.D. —besides editing the works of Hippocrates, recommended a plaster composed of bulls' testes, saffron, and roses "whenever through labor the pudendum is torn."

The German Language.—Dr. James C. White, Adjunct Prof. of Chemistry, Harvard University, in an "Introductory Lecture before the Medical and Dental Schools," advises the student to study the German language on account of its importance. Nine-tenths of all that is new and important in physiology, pathology, and medical chemistry is the work of German hands and brains. If the student wishes to keep up with the progress of his art, he must learn German.

A Prolific Mother.—There is now living in Danielsonville, Conn., a woman of French extraction, who has borne twenty-five children.

Relative Number of White Corpuscles to Red.—Welcker states that there is one white corpuscle to 335 red, and on the authority of Moleschott, one to 357. Boys have one colorless to 226 colored; men, one to 316; old men, one to 381. Girls, one to 389; young women who are menstruating, one to 247; the same women when not menstruating, one to 405; pregnant women, one to 281.

Local Application of Carbolic Acid in Diphtheria. —Dr. C. G. Rothe (*Berliner Klin. Woch.*) applies carbolic acid to the seat of disease by means of a hair-pencil. The patient is to use at the same time, as a gargle, ten or fifteen drops of this agent to a tumbler of water.

Bologna University.—The anatomical theatre in the medical department of this university, the second in Europe in date, is the finest and most appropriate in style that could be conceived. Its walls and ceilings are adorned with carvings that illustrate anatomy, while the lecturer's chair is beneath a canopy supported by two exquisite carvings of the human figure, exhibiting all the tendons and muscles.—*Bellows' Old World.*

London Milk.—A very diligent and impartial investigation into the quality of milk sold by London dairymen, by the *Milk Journal*, reveals that out of fifty firms only thirteen sell genuine milk; eight are in a doubtful list, and twenty-nine supplied their customers with skimmed, watered, or skimmed and watered milk, instead of fresh milk. In other words, so far as our inquiry goes, it demonstrates that twenty-six per cent. of the milk-dealers of the metropolis sell what they profess to sell, sixteen do not always adhere to the rule, and fifty-eight per cent. deal in a deteriorated article which in many cases is worth less than half the price charged.—*Med. Press and Circular.*

Aikin, S. C.—A Place for Consumptives.—Drs. Amory Coffin and W. H. Geddings, of Charleston, South Carolina, show the advantages of Aikin, S. C., as a residence adapted to persons suffering with pulmonary tuberculosis, or predisposed to it. This town has the subjoined climatic conditions which are adapted to arrest the progress of this disease: First. *Dryness* is the *first* attribute of a good climate for consumptives. Second. *Elevated positions* are much to be preferred to low levels. Third. *Fresh* and *pure air* is indispensable to the consumptive; consequently that climate is best in which the patient is able without discomfort to spend the greater portion of his time in the open air.

Westminster College Hospital, London.—Dr. Basham having resigned the chair of medicine in this medical school, Dr. Francis E. Anstie has been appointed in his place.

Encephaloid Tumor of the Neck.—Professor Pancoast, of the Jefferson Medical College, Philadelphia, lately removed an encephaloid tumor from the neck of a male, by occupation a blacksmith, aged 37 years. Its measurements were as follows: Circumference of base, 14 inches; circumference taken antero-posteriorly, 11 inches; circumference taken vertically, 9 inches. The patient returned to his home, cured, two weeks after the operation.—*Medical Times.*

Excisions of Joints.—Mr. Grant, Surgeon to the Royal Free Hospital (*Med. Times*), communicates twenty cases of excision of joints for disease, without a death. Nine were of the knee, of which six were successful, and three were subjected to amputation, in one case after a second excision. Six cases were of the hip, and five of the elbow, and all made good recoveries. In one of the elbow cases a repetition of the operation was required.

Report on the Cattle Disease.—Edwin M. Snow, M.D., of Providence, R. I., Chairman of the Board of Cattle Commissioners, in his "Report to the General Assembly," regards the foot and mouth disease of cattle as highly contagious, and as taken by a contact of the feet, or of the mucous membrane of the mouth and nose of the animals, with the saliva or other secretions, or the manure of other animals that have disease. It seems probable that the disease cannot be communicated from one animal to another through the air, but only by actual contact with the secretions. In regard to the treatment, the subjoined recommendations are noted: *First* of all, the animals should be kept in a dry and clear place. *Second*, in the early stages of the disease, the animals must be fed with potatoes, chopped fine, to relieve the constipation. *Third*, for the sore mouth, powdered alum, or fine salt, has been recommended. A tablespoonful of either, or of a mixture of the two, may be thrown as far as convenient into the mouth of the animal two or three times daily. Powdered chlorate of potash may be used in the same way, and Dr. Snow is inclined to think that this is the best of all.

A Snug Medical Fee.—When the Crown Prince of Russia lay dying at Nice, Prof. Oppolzer, of Vienna, was summoned by telegraph, but arrived too late—the Prince was dead. But the Emperor met him with his carriage at the station, and besides paying him the honor due a prince, gave him the sum of twenty-five thousand guldens, or $13,887.50.

American Medical Association.

TWENTY-SECOND ANNUAL MEETING,

HELD IN PACIFIC HALL, SAN FRANCISCO, CAL.

First Day—May 2, 1871.

Prof. Alfred Stillé, of Philadelphia. President, in the Chair.

The meeting was called to order pursuant to previous adjournment by Dr. Arthur Stout of San Francisco, who introduced the President, Dr. Alfred Stillé.

The Right Rev. Bishop Kip offered a prayer, after which the report of the Committee on Credentials was called for.

ADDRESS OF WELCOME.

Dr. Stout, after extending to those present a hearty welcome, proceeded to illustrate certain improvements that had been made during the last few years, and in that connection exhibited a picture of New York city, painted in 1776. Through the centre of the city could be traced the road to Boston—a road which then occupied as much attention as the great trans-continental railroad, over which the visitors had just passed. What elements of knowledge had been evolved since that period! What food for reflection was afforded by that picture! The speaker had the honor of being a delegate to the first meeting held for the organization of the Association; was a delegate from Blackwell's Island in 1846. He assisted in driving the first nail in the splendid structure there created, and was happy when he thought of the many improvements which had since been secured. He had cast his fortunes with California—and now he felt proud of her achievements. She had pressed forward, step by step—not without difficulties and embarrassments—and now stood in the foremost rank—and San Francisco held the post of honor. The visitors would have ample proof of the statement he had made. They would see the Toland and other private Medical Colleges; they would see the University of California—a free institution, where opportunities for securing a medical education, with all the embellishments, were abundant. He would point with pride to the Lunatic Asylum at Stockton as a model institution, and would show them many other sights of interest to medical men. And when they had seen all the points and fully digested them, they could return to the East and disseminate information among the people. The profession on this coast had many obstacles to overcome—hence its triumphs were all the more creditable. They had been assailed from all sides, and now that the Association met, it was appropriate that a defence should be made. The profession had been assailed by one of the most brilliant intellects of the bar. That gentleman had remarked in effect, during a recent criminal trial, that medicine was not a science. Not a science! Could the gentleman in question teach him science? The speaker thought not—and proceeded to demonstrate his ideas upon this question. The profession had also been assailed by poets and writers, who insisted that the investigations by physicians had deprived them of the fanciful and beautiful structures out of which brilliant ideal images might be created; that physicians had left nothing for the imagination, and wronged the science of medicine; in truth, it opened new fields for literary rambles. Theologians were opposed to the science of medicine, because, as they said, the physician came between the patient and his spiritual adviser. But a better day was dawning, when all scoffers would be converted. In conclusion, the speaker again extended a cordial welcome to the gentlemen from the East.

REGISTRATION.

While the business of the Convention was in progress, Dr. Joseph Tucker, of the Marine Hospital, was engaged in registering the names of delegates. Dr. Stout reported that the registration would not be complete until to-morrow, hence the report of the Committee on Credentials could not be submitted.

A motion to postpone the consideration of the report on credentials until to-morrow prevailed.

A COMMUNICATION,

received from Prof. S. D. Gross, a former President of the Association, was read and placed on file. The writer expressed his regrets at not being able to be in attendance.

INVITATIONS ACCEPTED.

A letter from the California Pioneers, inviting the members of the Association to avail themselves of the privilege of the Pioneers' rooms, was read and filed.

Also a letter from A. L. Bancroft, inviting the Association to inspect his publishing house. Filed.

And from the Board of Health, inviting the members of the Association to visit the rooms of the Board of Health, County Jail, City Prison, City Hospitals, Almshouse, etc. Filed.

THE ANNUAL ADDRESS

of the President was next delivered. It was learned, elaborate, and scholarly. After touching in a general way upon the progress of our science, he proceeded to discuss the merits of the education question. He took the ground that a higher standard was required, but experience had taught him that the main impediment was the want of a general agreement among the colleges as to what particular course should be pursued. It was necessary that some agreement, some general platform should be adopted, else the pecuniary interests of certain schools, who might not see fit to enter upon the radical reforms, might be damaged.

The medical rights of women were also alluded to, and after advocating their claims to recognition, he was content to leave the whole matter to time and experience. He did not think that the Association was ready to decide upon the merits of the case as yet. In regard to the question of colored medical men, the same advice was judiciously offered. These, together with other points made in the address, were made with such elaboration that it is impossible to do more than refer to them here. At a future time we may present them at more length to our readers, with such comments as may seem to be demanded.

After the transaction of some routine business, the Association adjourned until the morrow.

Second Day—May 3.

The Association met in Pacific Hall, at 10:30 A. M., yesterday, pursuant to adjournment. Prof. Alfred Stillé in the chair.

The minutes of Tuesday's session were read and approved.

REPORT OF COMMITTEE ON CREDENTIALS

was next offered. The names of the accredited members were next read, and the following were also declared members by invitation: *Utah*, J. W. Graham; *Costa Rica* (*C. A.*), C. H. Van Patten; *California*, G. H. Evans, T. B. Hatch.

On motion of Mr. McArthur, the four gentlemen

named above were elected permanent members of the Association.

CONSIDERATION OF THE REPORT.—A DELEGATE FROM THE WOMAN'S MEDICAL COLLEGE OF PHILADELPHIA.

DR. AMES, of Minnesota, moved that the report, with the exception of that portion referring to the members by invitation, be accepted.

DR. STORER, of Boston, moved to amend the motion, in that the report be accepted as a whole, and not as at present adopted.

DR. TONER desired to have defined the relations of Dr. Thomas (of Philadelphia) to the Association—a delegate from the Woman's Medical College.

DR. HENRY GIBBONS doubted the propriety of catechizing members, after the Committee had accepted their names. It would establish a bad precedent, aside from creating unhealthy wrangles. He suggested the reference of the Thomas case to the Committee on Ethics—but he believed such a committee did not exist.

DR. PINKNEY attempted to define his position, etc., and was declared out of order.

DR. PANCKS moved that the case of Dr. Thomas be referred to the Committee on Ethics; if none existed —holding over from last year—one might be appointed.

The President stated that Dr. Thomas was in full communion with the Association; no case for consideration existed.

DR. TONER moved that the vote whereby the report of the Committee on Credentials was accepted, be reconsidered.

Declared out of order.

DR. THOMAS arose to a question of privilege, and enumerated the Medical Societies in Philadelphia with which he was connected.

DR. STORER remarked that Dr. Thomas's explanation did not satisfy him. It showed that the gentleman was in better standing than he had supposed, but he favored the reference of the matter to the Committee on Ethics.

A delegate suggested that Dr. Pearson, of Woodland, occupied questionable relations with the Association.

DR. JOHNSON, of Missouri, endorsed Dr. Pearson as a highly educated physician and able practitioner.

The Dr. Thomas case was finally referred to the Committee on Ethics by a vote of 85 to 15.

DR. H. GIBBONS stated that there was no Committee on Ethics in existence.

The President, by a vote of the Association, was authorized to appoint a Committee on Ethics at an early day.

ALL PHYSICIANS IN GOOD STANDING INVITED TO ATTEND.

DR. LOGAN presented a list of members of the San Francisco Medical Society, and moved that they be declared members of the Association by invitation.

DR. STOUT favored the motion, and recited cogent reasons for his action. California, situated on the verge of the continent, and yet in her infancy, failed to afford some of the facilities for progress found in the East. Medical societies were not numerous here, and chances for physicians to become eligible for membership to the National Society were comparatively few. It was for this reason that he supported the motion.

DR. SIMMONS, as one of the Committee on Credentials, would have been pleased to recommend the gentlemen for membership, but found the Constitution prohibited such action.

DR. DAVIS, of Boston, said that there were other medical gentlemen, outside of those in the list read by Dr. Logan, who were desirous of becoming members of the Association. The speaker did not favor excluding the gentlemen—by no means. Let them come in and witness our proceedings; extend cordial invitations to them to mingle with members of the Association; but they cannot be admitted as members. The Constitution would not permit the passage of the motion offered by Dr. Logan, and the Association must cling to the Constitution.

DR. LOGAN'S motion was lost, and a motion to invite the applicants to visit the meetings of the Association prevailed.

MEDICAL EDUCATION MATTERS.

DR. YANDEL, of Kentucky, read a report of the Committee on Medical Education, prepared by E. Geddings, M.D., of South Carolina. In a private letter Dr. Geddings notified the Association that the entire report was written by himself, without consulting other members of the Committee—G. M. Forrest, Egbert B. Johnson, and W. O. Ayres.

On motion, the report was accepted and referred to the Committee on Publication.

In the discussion of the report, considerable time was occupied by appeals from the decisions of the Chair, etc.

INVITATIONS AND ADVERTISEMENTS.

DR. HENRY GIBBONS informed the Association that he had pleasing intelligence to communicate. When the expectation of the meeting had been sufficiently aroused, he reported the receipt of additional invitations.

Landsberger, the famous champagne manufacturer, had extended an invitation to members of the Association to visit his establishment.

On Thursday, at recess, the members of the Association were invited to inspect the Toland Medical College, and partake of a collation.

Immediately after the adjournment, the members would visit Oakland, by invitation, and inspect her institutions of learning.

The Association would probably conclude its business on Friday afternoon, and Saturday might be devoted to a trip around the Bay.

On Monday Woodward's Gardens would be thrown open to the members of the Association. The Speaker dilated upon the numerous attractions at the Gardens.

A letter from the proprietor of the Geysers was read. The writer invited the Association to visit his summer resort—he agreeing to pay the expenses of one out of every twenty of the members.

All the invitations were accepted.

HOMŒOPATHY AND DR. H. A. MARTIN.

DR. GIBBONS read an article on vaccination, published in a homœopathic journal by Henry A. Martin, chairman of the Committee on Vaccination. When he had finished reading the article, Dr. Gibbons moved for a reconsideration of the vote whereby Dr. Martin was continued chairman of the said Committee for another year. The gentleman had insulted each and every member of the Association by the publication, and in justice to themselves immediate action should be taken in the matter.

DR. STORER was unacquainted with the circumstances of the case, and felt that the Association should suspend judgment until Dr. Martin could be heard.

Members called for a second reading of the article.

DR. GIBBONS read the first few lines.

Members—"That's enough."

DR. DAWSON moved that the erring disciple be expelled.

Dr. Bibb moved that a committee be appointed to prepare charges against Dr. Martin.

Dr. Davis suggested the reference of the matter to the Massachusetts State Medical Society, to which Dr. Martin belonged.

Dr. Johnson gave Massachusetts a shot for her delinquencies; many of the regulars consorted with homœopathists in that State, hence nothing would be accomplished by referring the matter to the local society.

Dr. Stout offered an amendment to Dr. Bibb's motion—that the matter be referred to the Committee on Ethics.

Dr. Gibbons' motion to remove prevailed. Dr. Stout's amendment to refer the matter to the Committee on Ethics was also passed.

THE COMMITTEE ON ETHICS

was appointed by the Chair, and consists of Dr. Henry Gibbons, Dr. Davis of Boston, Dr. F. S. Smith, Dr. Parsons, and Dr. Toner.

A motion to refer all questions of membership and character to the Committee on Ethics, prevailed.

Several protests from Connecticut, Massachusetts, and New York were referred to the Committee on Ethics.

PRIZE ESSAYS.

Dr. T. M. Logan, of Sacramento, Chairman of the Committee on Prize Essays, reported in favor of awarding prizes as follows: First prize to E. R. Taylor, of Sacramento, for essay upon the "Chemical Constitution of the Bile." Second prize to Benj. Howard, M.D., of New York; subject, "The direct method of artificial respiration for the treatment of persons apparently dead from suffocation from drowning, or from other causes."

Several other essays were received and considered.

On motion, the Committee on Prize Essays were instructed to return essays to writers when desired.

A BOARD OF CENSORS FOR DETERMINING EDUCATIONAL QUALIFICATIONS.

Dr. Davis, of Boston, member of the Committee on Resolutions, appointed at the meeting of the Association in 1869, submitted an elaborate report, closing with the following resolutions:

Resolved, That each State and local Medical Society be requested to provide, as a permanent part of the organization, a Board of Censors for determining the educational qualifications of such young men as propose to commence the study of medicine, and that no member of such societies be permitted to receive a student into his office until such student presents a certificate of proper preliminary education from the Censors Committee appointed for that purpose, or a degree from some literary college of known good standing.

Resolved, That a more complete organization of the profession in each State is greatly needed for the purpose of affording a more efficient basis, both for educational and scientific purposes.

Resolved, That a committee of three be appointed for the purpose of continuing the correspondence with the State Medical Societies, and of asking their earnest attention to the foregoing resolutions, in addition to those submitted for their action in 1869.

The resolutions were discussed at considerable length.

The Committee resolutions, together with a resolution offered by Dr. J. S. Moore, of St. Louis, relative to the prize of medical scholarship, were tabled.

The Association next adjourned to Landsberger's wine manufactory on Jackson street, between Sansome and Montgomery. It is almost needless to remark that they were hospitably entertained, and that the article sampled was not condemned.

MISCELLANEOUS COURTESIES.

The Eastern gentlemen were hospitably entertained by their California brethren. Receptions were held every evening, when pleasant intercourse was enjoyed, and rides to the Cliff House were indulged in daily.

THIRD DAY—MAY 4.

The Association assembled yesterday, pursuant to adjournment. In the absence of Dr. Stillé, Dr. Henry Gibbons assumed the chair.

Professor Carr, of the State University, was introduced, and referred to the acceptance of the Oakland invitation by the Association, and stated that it was extended by the Mayor and the citizens. He felicitously described the programme for the occasion, which would consist in visiting the prominent educational institutions, and the partaking of a collation—the latter to consist solely of California productions. The approximate number of visitors to the "Cambridge of California" was ascertained, after which the Professor retired amid applause. The excursion party would leave on the 11:10 A. M. boat.

REPORT OF COMMITTEE ON PUBLICATION.

The Committee on Publication respectfully reported that the copy of Vol. XXI. was put into the hands of the printer on May 26th, 1870, but in consequence of the necessity of ascertaining definitely, by means of circulars distributed to the members of the Association, how many copies it would be necessary or safe to print, the volume was not fairly started until the 1st of July. They then went to press, and 650 copies were printed. The report is accompanied by a table, exhibiting the number of copies of each volume, and the number disposed of since the last report. Submitted by F. G. Smith, Chairman of the Committee; read by the Secretary.

Received and referred to the Committee on Publication.

TREASURER'S REPORT.

The Treasurer's report was read by the Secretary, from which we learn that the balance on hand is $704.32. The Treasurer reiterates the hope that the Association will not refer any matter to the Committee on Publication not of real value, as all the matter thus referred must be published, at times causing the volume of Transactions to cost more than the sum fixed for its purchase by members.

Referred to the Committee on Publication.

THE LIBRARIAN'S REPORT.

The report of the Librarian, F. A. Ashford, M.D., of Washington, was received and read. He reported that the books entrusted to his custody by his predecessors had been well preserved at the Smithsonian Institution, through the kindness of Prof. Henry and its Regents. Three hundred and thirty-nine volumes, including pamphlets, monographs, etc., composed the collection at the date of the last report, and the additional matter received during the past year has been chiefly a continuation of the *Medical and Surgical Journal*. The report is replete with important suggestions.

Referred to the Committee on Publication.

ASSOCIATION OF SUPERINTENDENTS OF INSANE ASYLUMS.

John C. Atlee, M.D., delegate to the Association of Medical Superintendents of American Institutions for the Insane, reported that he had attended the twenty-fourth annual meeting at Hartford, Conn., in June last, and was cordially received, etc. The Association, formed in 1844 by thirteen Superintendents, has been steadily increasing in the number of its members, and now em-

braces more than sixty, representing institutions in almost every State in the Union. Reports embracing a variety of subjects relating to insanity, were read and ably discussed; and four days were profitably occupied.

The report was submitted to the Committee on Publication.

Dr. Kirwan, delegate from the Association above mentioned, to the American Medical Association, addressed the meeting at great length, urging closer relations between the Associations. His remarks came in the form of a report, and were referred to the Committee on Publication.

Dr. Storer said that at a previous meeting the question of having the Association devoted specially to the treatment of the insane meet in closer relations with the American Medical Association, was presented. And the sense of the meeting always favored the "close relations." He would then offer the following resolution:

Resolved, That the Association of Superintendents of Institutions for the Treatment of the Insane and the American Medical Association should be more closely united, and that the meetings of the two Associations should be held at about the same time and at the same place.

Adopted.

THE PINKNEY REPORT.

Dr. Yandell, of the special committee, to whom was referred the report of Dr. Pinkney on Foreign Naval Medical Affairs, submitted at the session of the Association in 1870, presented the said report, and moved its reference to the Committee on Education.

The motion prevailed.

FRACTURE OF CERVIX FEMORIS.

Dr. E. T. Barber, of Yreka, submitted a report upon a case of fracture of the neck of the femur in a child seven years of age.

Referred to the Committee on Publication.

THE BOTANY OF THE PACIFIC COAST.

The Chairman of the Section on Materia Medica and Chemistry, Dr. Gandell, reported having received a valuable paper from Dr. Gibbons, of Alameda, entitled *The Botany of the Pacific Coast*. The paper was accompanied by one hundred and eighty specimens of indigenous plants, etc., and would certainly be considered a valuable contribution to the science of medicine.

The committee moved that the paper be referred to the Committee on Publication.

Dr. Gibbons arose and requested that the recommendation of the committee be withdrawn. The paper was not complete—not as perfect as he could make it by additional work.

On motion, a vote of thanks was passed, and the paper returned to its author for completion.

THE CANADIAN MEDICAL ASSOCIATION.

Dr. H. R. Storer, delegate from the American Medical Association, to the Canadian Medical Association, submitted a verbal report in behalf of himself and associates—Dr. Sullivan, of Boston, and Dr. Gerrish, of New York. He eulogized the Canadian Association. Its members were far above the members of the American Association in point of medical education—almost all of them having graduated from European colleges of note.

NOMINATING COMMITTEE.

Alabama, J. S. Weatherby; California, J. M. Logan; Colorado, G. R. Bibb; Connecticut, E. K. Hunt; Washington, J. M. Toner; Illinois, A. L. McArthur; Indiana, G. W. Mears; Iowa, S. B. Thall; Kansas, D. W. Stormont; Kentucky, T. N. Wise; Maryland, J. Morris; Massachusetts, E. Cutter; Michigan, Dr. Donglass; Missouri, Dr. Golding; Minnesota, N. B. Still; Nebraska, John Black; New Hampshire, J. L. Swett; New Jersey, W. Elmer; New York, B. F. Dawson; Ohio. R. S. Gilchrist; Oregon, Daniel Payton; Pennsylvania, F. G. Smith; Rhode Island, G. L. Collins; Vermont, Harvey Janes; West Virginia, R. H. Cummins; Wisconsin, J. K. Bartlett; U. S. Navy, Philip Lansdale.

ELECTION OF OFFICERS.

The Committee on Nominations made the following report: We recommend for officers, President, Dr. D. W. Yandell, of Kentucky; First Vice-President, Thos. M. Logan, of California; Second Vice-President, C. L. Ives of Alabama; Third Vice-President, R. M. Mitchell, of Alabama; Fourth Vice-President, J. K. Bartlett, of Wisconsin; Assistant Secretary, D. Murray, Chester; Librarian, F. A. Ashford, Philadelphia; Treasurer, C. Weston, Philadelphia. Next place of meeting, Philadelphia.

On motion of Dr. Davis, the report was accepted, and the officers unanimously elected.

THE COMMITTEE ON ETHICS

submitted a partial report, recommending some removals, etc., and asking time in the case of Dr. Thomas, the delegate from the Female College of Philadelphia.

The report was accepted.

THE FEMALE PHYSICIAN QUESTION.

Under the head of unfinished business, an amendment to the Constitution, offered at the last meeting of the Association by Dr. H. Hutchinson, of Philadelphia, was taken up for consideration.

The proposed amendment is embodied in the following resolution:

Resolved, That the Constitution shall be so construed as not to exclude delegates from Female Colleges.

Dr. Harding, of Indiana—I move the adoption of that resolution, and would like to make a few remarks pertinent to the question which is termed vexatious. It has been before this Association repeatedly, year after year, and the time has now arrived when it should be definitely settled. I can see no good reason why females should not be allowed to practise as physicians—can see no good reason why, when practising physicians, they should not be admitted to this Association as delegates—when qualified. They have arrived at that point when their professional ability and zeal cannot be ignored, even by those who claim to have the least respect for them. You all realize the necessity for taking action in this matter, and that speedily; for your professional duties have brought you more or less in contact with female physicians. These women have combated against all opposition; have overcome nearly every obstacle thrown in their path, and now simply ask a recognition from us—a mere recognition of them as physicians and not interlopers. Gentlemen, you cannot give them the cold shoulder; such a course would be entirely inconsistent with the profession in the estimation of intelligent, right-minded people. You cannot shift the responsibility of the occasion by placing the question in a false position, even were any of you so disposed; but must consider it impartially. With me it is not simply "Shall we admit the women as delegates," but "Is it not for the interest of the profession to aid them in every possible manner?" Suppose that we refuse their applications, what may be the result? Instead of harmony in the profession we shall have strife, and the legitimate practice of medicine will be endangered. If

we refuse the women admission, we shall drive them into homœopathy, etc. Let the women come in, open the Colleges to them, dash down the barriers, and all will be well.

Dr. Davis, of Illinois—I hope that the question will not be disposed of until the Association understand its full meaning. What does the proposed amendment mean? Gentlemen, it means that the delegates from female colleges—whether male or female—are eligible to become members of this Association. Thus far they have sent a male representative, but if we adopt this proposed amendment the door will then be thrown open to females, and these females will undoubtedly come in. But pause, and think for a moment. Has the time come when you are willing to throw aside all distinctions as to sex? Will that time ever come? Is there no difference between the sexes? And are we to forget all distinction, because of popular clamor? I make no comparisons as to the relative merits of the sexes for the medical profession; but I say, gentlemen, "Let the female remain in her sphere, and I will remain in mine." I will say to her, "You can no more do the work designed for me than I can do the work designed for you." Woman has her sphere; man has his sphere; and the assumption that woman rises when she unsexes herself I claim to be erroneous. But if we are to admit of the change; if woman is to step into every profession, then she will take the shape, the plan and the rough work of man. Who will admit such work to be within her sphere? The Creator has given the sexes distinctive features, and intended us for different spheres. This fact is unmistakable. Woman, pure woman, may be a power in the land—in her sphere. Then let her not mistake her sacred mission as wife and mother, as the light of the household. Let us not yield to the cry of "Woman's rights," as now construed. I have had women at the clinical basin, stripped a patient before them, made examinations and remarks, conducted myself with the same freedom which characterizes the ordinary clinic, conversing about the case and explaining all its important points. But, gentlemen, after all my experience, I am more firmly convinced than ever that it would be better for these women if they remained in their sphere.

Dr. Donaldue, of Ohio—I move that the resolution be tabled.

The motion was withdrawn.

Dr. King, of Pennsylvania, made an able, elaborate address in behalf of the amendment. Not being a speaker, he did not propose to say much, but he wanted the question settled. In his own local society, the question had been defeated and defeated year after year, and it was getting troublesome. It was beneath the dignity of an association of learned scientific men to war with women. If they must exercise their bellicose propensities, they should enlist under General Crook, to fight the Apaches. Gentlemen had talked about the sphere of woman. Would these gentlemen be a little more explicit in their definition of the meaning of the word sphere. Perhaps they would take India for their standard—where the women were treated as brute animals—

> "Doomed by the law of man to toil;
> Yoked to the plow and fettered to the soil."

Let them assist in lifting up woman—if they considered her degraded. Some gifted mind had handsomely termed her "the ministering angel." That sounded well, smacked of euphony, but, according to their definition, it was not practical enough. Could she not be a ministering angel and also a physician? "Oh, no, she lacks the intellectual capacity for such a purpose. She is weak and silly, and cannot grasp with the science of medicine. We have the intellect; we can grasp," said the speaker. Why, he had examined the records of the Female College of Philadelphia, and knew what he was talking about; knew that the women had made rapid strides in the profession, and that many of them were skilful practitioners. If it was consistent with the code of ethics, and he believed such to be the case, the women should certainly be admitted to the Association. As the case now stood, a member of the Medical Association could not recognize a female as a member of the profession; could not consult with her. If he was summoned, and found a woman had charge of a case, what could he do? According to the law of the Association, he must say to her, "Walk out of this house, and let me take exclusive charge of this case." The speaker would rather remove his right arm than perform so mean an act. As the case now stands, he could not consult with the President of the Association, the eminent Dr. Stillé, and this because the Doctor was consulting physician in the Philadelphia Female Medical College. Under the present *régime*, if the Association consulted with its President, it stultified itself.

Dr. Henry Gibbons made a brief speech upon the question. He favored the amendment; believed that women had a perfect right to practise medicine, but did not think mixed colleges healthy. He believed that his residence upon the verge of the continent, away from the turmoil and strife over the woman question in the East, qualified him to consider the matter dispassionately. He was astonished at the course of his old friend Dr. Davis, and the *ad captandum* argument he presented. The question, being one of vital importance, demanded serious consideration at the hands of the members.

Dr. Johnson, of Missouri, opposed the amendment. He contended that the women should organize their own associations and manage their own affairs. His remarks were listened to with attention, and warmly applauded.

Dr. Atlee, of Philadelphia, favored the amendment, making an able speech in its behalf.

Dr. A. L. McArthur, of Illinois, favored the education of women for physicians, but was opposed to the amendment. The idea of the two sexes operating at the same dissecting table was revolting. The speaker also opposed the mixture of the sexes in colleges.

Dr. Thomas, the representative of the Philadelphia Female Medical College, was called upon the stand, and made an eloquent appeal in behalf of the women. He did not place them in the posture of supplicants, but gave a logical, comprehensive statement of their rights and qualifications.

INDEFINITELY POSTPONED.

A vote was taken, and the question indefinitely postponed.

The Convention then adjourned to

THE TOLAND MEDICAL COLLEGE,

where they passed a few hours pleasantly in inspecting the institution and partaking of a collation.

FOURTH DAY—MAY 5.

The Association assembled at 9 A.M. President Stillé in the chair.

A number of the delegates having departed for the interior, the attendance did not equal that of previous sessions.

The minutes of preceding meetings were read and approved.

The Secretary, Dr. Atkinson, read the following

VOTE OF THANKS.

OFFICE OF CALIFORNIA STATE MEDICAL SOCIETY,
San Francisco, May 5th, 1871.

To the Members of the American Medical Association.

GENTLEMEN:—Allow me, in the name of the medical men of the Pacific Coast, to tender our thanks to the Association for the honor conferred upon us by the assembling of members of this Association in the city of San Francisco, whereby so many of our brethren, who for years have been isolated from the association of their more favored Eastern brethren, have had an opportunity of attending the deliberations of this honored and national body.

GEORGE HUESTON,
Corresponding Secretary of the State Medical Association.

Accepted and entered on the minutes.

A NATIONAL HEALTH COUNCIL.

DR. T. M. LOGAN, of Sacramento, submitted the following preamble and resolutions:

Whereas, The science of hygiene and its corollary preventive, a state medicine, are subjects eminently congenial with the purposes of this Association, inasmuch as they have for their objects the preservation of human life, and the removal of those causes of disease and death which it is in the power of legislation to ameliorate, if not eradicate; and *whereas*, the great fundamental idea that was made the prominent element for medical association, and that led eventually to our national organization, was a higher standard of medical education; and, *whereas*, the present system adopted by our colleges provides more and more satisfactorily for the thorough qualification of the graduate, as regards the principles and practice of his art, but does not provide at all adequately for the special study and cultivation of questions of state medicine, therefore be it

Resolved, That this Association recommends a distinct and separate chair of hygiene, independent of physiology, to be established in all our medical schools, and constituted a requisite curriculum preliminary to that diploma which confers one of the highest honors of the profession.

Resolved, That the inauguration of the enlarged philanthropic policy of state medicine in Massachusetts and California is worthy of our special approbation, and commends itself to other States for imitation; and therefore the President of this Association is hereby authorized to nominate at this session, a committee, consisting of one physician from each State in the Union, to memorialize the legislatures of all the other States to follow the example of one of the oldest, most enlightened and conservative, as well as of one of the youngest, most progressive and enterprising members of our glorious confederacy, who have led off in the right way, and at the right time, for the prevention of disease and the correction of "those multitudinous agencies, whether physical, whether moral, whether born of earth, of air, or of society, which are either openly or insidiously degenerating the human race."

Resolved, That this association further recommends that initiative steps be taken, as soon as six States shall engraft state medicine upon their statute-books, for the formation of a "National Health Council," whose objects shall be the prosecution of the comparative study of international hygienic statistics, and the diffusion and utilizing of sanitary knowledge; and that said council shall be aided and assisted by this association in using whatever influence may legitimately lie in their power, with foreign states, as well as with the medical profession and the people generally, in securing co-operation in the ends and objects of public hygiene.

Resolved, That said National Health Council, although thus organized as a branch *per se*, shall be auxiliary to this Association, and shall constitute a special section on hygiene, to which all questions germane to this department of medicine shall be referred. "Only," to use the language of the great Virchow, "by thus working harmoniously together, by thus mutually enlightening each other, will the state gain an organ to which may be safely entrusted the solution of the great question of our time, viz.: bodily and mental health, and development of future generations."

Adopted, and referred to the Committee on Publication.

DR. LOGAN moved that the State of Pennsylvania be represented by the President, Dr. Stillé. Carried.

NOMINATING COMMITTEE REPORT.

Balance of the report of the Nominating Committee. Time of meeting, first Tuesday in May, 1872. The Committee have selected as

Committee on Publication—Dr. F. G. Smith of Pa., Chairman; W. B. Atkinson, Pa.; D. Murray, Chester, Pa.; F. A. Ashford, D. C.; Caspar Wistar, Pa.; H. F. Askew, Del.; I. Aitkin Meigs, Pa.

Committee on Prize Essays—Dr. A. Stillé, Chairman, Phila.; F. G. Smith, Phila.; D. A. O'Donnell, Balt.; B. F. Dawson, N. Y.; L. P. Bush, Del.

Committee on Medical Education—J. S. Weatherbey, Alabama, Chairman; L. Cooper Lane, S. F.; J. M. Toner, Washington; Samuel Willey, Minnesota; W. O. Baldwin, Alabama.

Committee on Medical Literature—T. Parvin, Indiana, Chairman; — Carpenter, Oregon; J. P. Witney, San Francisco; Y. Mendenhall, Cincinnati; L. P. Garvin, R. I.

Committee on American Medical Necrology—Chairman, John D. Jackson, Ky.; Chas. W. Parsons, R. I.; E. A. Hildreth, West Va.; Wm. Lee, Washington, D. C.; T. M. Logan, California; W. C. Warrener, Oregon; H. D. Holton, Vermont; W. J. Scott, Ohio; W. D. Buck, New Hampshire; A. Sager, Michigan; V. Karsey, Indiana; A. E. Ames, Minnesota; H. K. Steele, Colorado; — Mason, Wisconsin; S. D. Gross, Phila.; D. W. Stormont, Kansas; J. B. Johnson, Missouri; H. R. Storer, Mass.; H. W. Rushenburger, U. S. Navy; I. W. H. Baker, Iowa; O. J. Hamilton, Illinois; — Peabody, Nebraska; L. P. Bush, Delaware; G. W. Russell, Conn.; Paul C. Chew, Md.

Committee of Arrangements—Dr. E. Hartshorne, Chairman; Drs. S. W. Gross, Murray Cheston, J. F. Maury, James Tyson, S. W. Mitchell, John H. Packard, William Pepper, Richard Townsend.

OFFICERS FOR THE SECTIONS.

Chemistry and Materia Medica—Prof. R. E. Rogers, Philadelphia, President; E. Cutter, Mass., Secretary.

Practical Medicine and Obstetrics—D. A. O'Donnell, Baltimore, President; B. F. Dawson, N. Y., Secretary.

Surgery—John T. Hodgen, Missouri, President; W. F. Peck, Davenport, Iowa, Secretary.

Meteorology and Epidemic Diseases—George Sutton, Indiana, President; Elisha Harris, N. Y., Secretary.

Medical Jurisprudence—S. C. Busey, Washington, President; E. L. Howard, Baltimore, Secretary.

Physiology—J. C. Dalton, N. Y., President; D. Payton, Oregon, Secretary.

Psychology—Isaac Ray, Phila., President; John W. Kirwan, Pa., Secretary.

Library Committee at Washington—Dr. J. M. Toner.

On the Climatology and Epidemics of—Maine, Dr. Wood, Portland; New Hampshire, A. B. Crosby; Massachusetts, E. Cutter; Rhode Island, Edward T. Caswell; Connecticut, I. C. Jackson; New York, Dr. W. F. Thoms; New Jersey, E. M. Hunt; Pennsylvania, W. S. Wells; Maryland, C. H. Ohr; Georgia, A. I. Senimes; Missouri, W. S. Edgar; Alabama, Dr. R. T. Mitchell; Texas, S. M. Welch; Illinois, D. Prince; Indiana, D. Clark; District of Columbia, Dr. J. W. H. Lovejoy; Iowa, I. Williamson; Michigan, — Douglas; Ohio, J. A. Murphy; California, Dr. F. W. Hatch; Tennessee, B. K. Bowling; West Virginia, E. A. Hildreth; Minnesota, Chas. N. Hewitt; Virginia, — Worthham; Delaware, L. B. Bush; Arkansas, Dr. Sinks; Mississippi, J. P. Moore; Louisiana, S. M. Benitss; Wisconsin, J. K. Rantell; Kentucky, S. P. Yandell, Sr.; Oregon, E. R. Fisk; North Carolina, F. J. Heywood; Colorado, R. G. Buckingham; South Carolina, M. Simmons.

Special Committees—Dr. A. L. McArthur, Chicago, Ill. On the nature and process of the restoration of bone.

George Sutin, Indiana—Comparative Pathology and the effects which diseases of inferior animals have upon the human system.

Dr. Antisell, Chairman of the Committee on the Cultivation of the Cinchona Tree.

Vaccination—Chairman, Dr. T. M. Wise, Kentucky.

Anatomy and Disease of the Retina—R. F. Michel, Alabama.

Some Diseases peculiar to Colorado—John Elsner, Denver, Colorado.

Skin Transplantation—J. Ford Thompson, Washington, D. C.

J. K. Bartlett, Secretary.

SECTIONAL MATTERS.

The Secretary read the minutes of the Committee on Obstetrics and Medical Jurisprudence. Referred to the Committee on Publication.

Dr. O'Donnell offered a resolution condemning criminal abortion, and urging stringent measures for its prevention. Adopted.

The Section of Meteorology and Epidemics also submitted statements, which were received and listened to with marked attention.

THE LINE AND STAFF IMBROGLIO.

Surgeon J. M. Brown, of the United States Navy, returned the thanks of the medical gentlemen of the department of the public service for the hearty co-operation of the Association in the recent contest between line and staff; a contest to define the position and rights of the latter, and acknowledge the dignity of the profession. The law now recognized the usefulness of the staff, and regulated the rank of staff officers; it did not give them all they were entitled to, but enough on which to make an honorable concession and fair compromise. Dr. Brown then read a lengthy document, containing the acknowledgments of medical gentlemen in the Navy for the assistance received from the American Medical Association.

Referred to the Committee on Publication.

DISSEMINATION OF ETHICAL KNOWLEDGE.

Dr. Montgomery, of Sacramento, offered a resolution to the effect that a Chair of Ethics should be established in all the Medical Colleges in the United States, either as an independent chair or in connection with some other department.

Withdrawn.

THE NUMBER OF LICENSED PHYSICIANS IN THE UNITED STATES

has been ascertained by Dr. T. M. Toner, after considerable labor, according to the statement of Dr. McArthur, of Illinois. There are some 60,000 physicians; only 3,000 of them homœopaths. In view of the importance of these statistics, it was moved that the statistics be referred to the Committee on Publication.

The motion prevailed.

A MEMORIAL TO SIR JAMES Y. SIMPSON

having been inaugurated by the physicians of Europe and Canada, and in view of the fact that the co-operation of the American Medical Association was desired, Dr. Storer moved that the Association take necessary steps in the matter, as an evidence of their appreciation of the deceased.

Carried.

DR. MARTIN, THE ERRING DISCIPLE,

who presumed to write an article for a homœopathic magazine, was not expelled from the Association; but his case was referred to the local society by the National Association Committee on Ethics.

THE FEMALE QUESTION AGAIN.

Dr. Atlee, of Philadelphia, offered the following resolution:

Resolved, That the American Medical Association acknowledges the right of its members to meet in consultation the graduates and teachers of Women's Medical Colleges, provided the code of ethics of the Association is observed.

Dr. Storer hoped that no action would be taken on the resolution. Inasmuch as the question was discussed fully yesterday, he would protest against the question coming up again. He thought that the sense of the Association was fully ascertained by the votes already taken.

Dr. Johnson, of Missouri, had a few words to say in behalf of the resolution. He hoped it would pass. This was not a question as to the admission of women into the Association; it was merely a resolution to protect medical science. He would regret to have the women assailed by the Association; any honorable man would agree with him on that proposition. Let the women have their own associations and manage their own affairs—but when it comes to consulting, all barriers should be removed. Gentlemen—

Dr. Gibbons called for the reading of the resolution.

The Secretary complied with the request.

Dr. Storer—I move to lay the resolution on the table.

Dr. Johnson—Can a motion be made while I have the floor?

President—No, sir.

Dr. Johnson continued his remarks, showing the peculiar position in which the President was placed as consulting physician of a Female Medical College in Philadelphia. According to the existing state of affairs, even members of the Association could not consult with the President, without violating its laws.

When Dr. Johnson concluded, cries of "Question!" "Question!" "Dr. Atlee!" "Dr. Atlee!" were heard.

Dr. Atlee—Gentlemen, we only ask from this Association a certain endorsement on the course pursued. The peculiar position we of Philadelphia occupy, compels us to demand the attention of the Association; all we ask is a definition of the course we are to pursue.

Cries of "Question!" "Question!"

Dr. McArthur, of Illinois, suggested the settlement of the question by the local society; if that became impossible, then it might be appealed to the National Association. In the present case there was no necessity for the Association to decide the question—it would not change the condition of affairs.

Dr. Gibbons—Then, why not vote upon the question at once?

Dr. McArthur—It would simply be a work of supererogation.

Dr. Gibbons—Does the gentleman mean to say that it is wrong for this Association to make a declaration of truth? Am I to understand that the Association will shirk its duty, and leave so important a matter in a chaotic state? Speaking for many of the intelligent faces before me, I may answer in the negative.

"Question," again, from all quarters.

Dr. Toner—I have

AN AMENDMENT

to offer: "*Provided*, That they are supported and recognized by the local and State Medical Societies."

Dr. Storer—I call for another reading of the resolution.

Request complied with.

Dr. Storer—One word, Mr. Chairman. [Cries of "Go on!" "Question!"]

A vote taken on the amendment offered by Dr. Toner resulted as follows: Ayes, 53; noes, 61. Lost. (In voting, delegates arose and were counted by the Secretary.)

Dr. Storer—I call for the ayes and noes on this question.

The Association, by a vote taken, decided against the calling of the ayes and noes.

Dr. Stout—Unless we adjourn, the Oakland excursion project will be defeated.

A Delegate—I have some resolutions to offer.

The President—You are out of order, sir.

A Delegate—I call for the reading of Dr. Atlee's resolution.

The Secretary again read the resolution.

Dr. Storer—One word. [Cries of "Question."]

Dr. Storer—I will state, with all respect to the honored President—and I esteem him highly—that if we endorse him in his capacity as consulting physician of the Philadelphia Female College, we stultify ourselves. And if he had been consulting physician a year ago, he would not occupy his present position.

Dr. Gibbons—I call the gentleman to order.

Dr. Storer—I accept the call, and would proceed to state that our President himself has expressed his views on this question—and he has had experience. [Cries of "Question." "Question."]

The question recurred upon the original resolution.

Dr. J. M. Brown moved that the subject-matter be indefinitely postponed.

Dr. Toner moved to lay the resolution upon the table.

The President called for an expression of opinion by the Association.

Misunderstanding the question before the house, many delegates arose; then became seated, and continued to give evidence of indecision, until the body of the house recalled reminiscences of the fishing experiences by the incessant bobbing in progress.

Finally a delegate called upon the President to state the question.

Dr. Atlee called for a vote upon his original proposition.

Dr. Davis desired to know if the Association would falsify its record of yesterday, and continue to wrangle until it was too late to go over the bay. The question under consideration did not amount to any more than tweedledee and tweedledum at best.

A motion to adjourn until 8 P. M. then prevailed.

The evening session was occupied by another characteristic discussion of the woman question, with the result of laying it on the table; and after the transaction of minor business the Association adjourned *sine die*.

THE OAKLAND EXCURSION.

The members of the Association, together with other invited guests, proceeded to the Oakland boat under the escort of Professor Carr, and paid the promised visit to the "city over the bay." They were hospitably entertained by the citizens of Oakland, the Mayor, and gentlemen connected with the State University and other prominent institutions.

AMERICAN MEDICAL JOURNAL ASSOCIATION.

Third Annual Meeting—San Francisco, May 1.

Dr. H. R. Storer, of Boston, President of the Society, assumed the chair, greeting his associates with appropriate welcoming remarks.

Dr. Henry Gibbons, Jr., was elected Secretary *pro tem.*

In the absence of records, the reading minutes of previous meetings was postponed.

Dr. Davis, of Chicago, read an extract from the Constitution of the Society, from which it appears that the editors of medical journals have thus associated themselves for many good reasons; among others, to cultivate fraternal relations among members of the medical profession, to urge a higher standard of preliminary education of persons proposing to enter the profession, and to collate vital statistics.

Several committee reports were called for, and, owing to absence of members, elicited no response.

The following journals were represented in the Convention: *Journal of the Gynecological Society of Boston*, Dr. H. R. Storer; Chicago *Examiner*, Dr. Davis; *American Practitioner*, Dr. Yandell; *National Medical Journal*, Dr. Toner; *Pacific Journal*, Dr. Henry Gibbons.

Dr. Davis, of the Committee on Constitution and By-laws, submitted the following resolutions:

Resolved, That the social, educational, and scientific interests of the profession would be greatly promoted by a more complete organization in every State and district in our country, such organization being calculated not only to direct and diffuse knowledge, but also to afford the most efficient means for procuring concerted and efficient action on all important questions of medical education and progress.

Resolved, That deficiency in the general education of young men entering upon the study of medicine in this country is an event of great magnitude, not only constituting a barrier to individual progress in professional life, but greatly lessening the general reputation and usefulness of the profession.

Resolved, That the members of this Association be requested to use their respective medical periodicals as agencies for calling the special attention of the profession to the topics mentioned in the foregoing resolutions, until such a professional sentiment is created, that no regular practitioner will feel at liberty to receive a student into his office who does not present testimonials from some competent source that he has, at least, a competent knowledge of the ordinary branches of education, including the lower mathematics and the natural sciences, and the several organizations are so far complete that the several State Societies become the real and authoritative representatives of the profession in each State.

Held over until the evening session, at the suggestion of Dr. Davis.

A communication was received from Dr. Thomas M. Logan, President of the State Medical Society, extending an invitation to the editors to be present at the session of the Society, at noon that day.

The invitation was accepted, and the editors reciprocated by inviting the State Society to visit the Y. M. C. A. Hall, and hear Dr. Storer's lecture. The subject of the lecture is as follows:—*The Reciprocal Relations of the Medical Profession, its Press, and the Community.*

The Committee on Curiosities of American Medical Literature were not prepared to report.

Dr. Davis offered a resolution to the effect that the officers henceforward shall be the President, Vice-President, Secretary, Assistant Secretary, and Treasurer; and that the Assistant Secretary be appointed by the President, annually, to reside at the place where the meeting of the Society is held.

Adopted.

The Committee on Registry of the Profession was discharged.

Dr. Dawson, of New York, and Dr. Jones, of New Orleans, were added to the Committee on Foreign Exchanges.

President Storer stated that he had corresponded with Professor Henry of the Smithsonian Institution, and communication between the Institution and the Society would be maintained. This gentleman also informed the meeting that about forty of the forty-three medical journals in the country were represented in the Society.

After the transaction of some unimportant business the Convention adjourned.

Progress of Medical Science.

Changes in the Osseous System as the Result of Rhachitis.—Prof. Abraham Jacobi, of New York (*Am. Journ. of Obstetrics*), in his elaborate discourse on "Craniotabes," notes the following changes in the osseous system as the result of rhachitis: 1st. *Infraction* is the effect of the bones getting thinner, inasmuch as absorption goes on regularly from the inside, while new normal bone is not formed on the outside. To what extent, in such case, the compression, and perhaps laceration of the inclosed medullary substance, may influence the general system, is a question which has not yet been studied. It is not perhaps impossible that, from the connection which has been found between the cells of the medulla and the lymphoid corpuscles, such an infraction of a rhachitical bone may have a great influence upon the organism. 2d. *Tumefaction* of the cartilaginous layer between the epiphyses and diaphyses, and rhachitical swelling of the costal cartilages at their junction with the bones. 3d. *Pectus carinatum*, in consequence of the sternal ends of the ribs being drawn inward by the inspiration, the sternum being pressed outward, and the cartilages being bent at a right angle. 4th. A *peculiar groove* around the ribs, caused by the traction of the diaphragm. 5th. *Mobility of the sacro-iliac synchondroses.* The weight of the body will push the promontory downwards, and give the pelvis a compressed, kidney-form shape. 6th. *Curvatures of the long bones*, resulting from their softening, from their direct increase in size, and from periosteal growth. 7th. *Thickening of the flat bones of the cranium.* The deposits are, usually, not very extensive, because absorption takes place at a very rapid rate, in consequence both of the pressure of the brain inside and of the pressure of the pillow outside. Dr. Jacobi regards rhachitis as a constitutional disease, and one of the grave and frequent nutritive disorders of infancy, and remarks that seldom, if ever, do we recognize a single or a few symptoms; as a rule, we find a large number of symptoms in the same patients. Believing that craniotabes has not found its proper share of attention in our own, the English, and even the French literature, he points out the most important clinical facts in regard to the subject. The softened spots, the results of rhachitical softening, thickening, and rapid absorption, are very frequently found at a great distance from the sutures. The periosteal deposits will not always be found in the same places; in fact very seldom near the sutures. They will take place where circulation is most rapid and copious, and favorable to normal or abnormal nutrition. As a rule, bones have very few blood-vessels; but infant bones, and especially cranial bones, are excepted from this rule. Absorption will take place at a number of spots which fulfil the following conditions: 1st. Rhachitical deposits must have taken place very copiously. 2d. The weight of the brain must fall on the softened spot. 3d. And the pressure of the pillow must form a third factor. The majority of the softened spots are found on that flattened right side. The chemistry of craniotabic bones is by no means different from that of other rhachitic bones. The large amount of water, the increased proportion of organic gluten matter, and the diminution of earthy salts, are characteristic of rhachitic bones in general. The symptoms in connection with *cranial rhachitis* are: The face, in the beginning, is generally fat, pale, rounded, expressionless because of its rotundity; it only gets smaller when the general nutrition gets impaired. Until then, and sometimes not at all, is the relation of the size of cranium and face disturbed. As a rule, in craniotabic patients there are no teeth, the large majority of them being not over half a year old. Besides, teeth will appear later, as a rule, than at their normal time of seven or eight months. The cranial sutures and fontanels will remain patent for a protracted period. Copious local perspiration, and baldness, mostly confined to the occiput, are frequently met with, not only in well developed craniotabes, but also in general rhachitis. Although the rest of the surface may not be liable to perspire, the head is moist. The pillow is always wet, frequently drenched. Particularly the occiput is suffering, as evaporation is less free. Convulsions are more frequent than paralysis, total or partial, temporary or permanent. One of the most peculiar complexes of symptoms belonging to this little category of paralytic diseases, depending on a diseased condition of the brain in general, and craniotabes in particular, is laryngismus stridulus, the crowing inspiration of children. The prognosis in each case of craniotabes will depend very much upon the original course of the disease, whenever such course can be made out. It will depend greatly on the duration of the disease at the time the case is first noticed; and, furthermore, upon the number and the character of the complications which have shown themselves. When the case is seen at a tolerably early stage, the prognosis is rather favorable; when seen late, after a certain amount of meningeal effusion has taken place, it is less so. There is only one condition attended by effusion where the prognosis is absolutely fatal—that is, the case of acute tubercular meningitis, otherwise acute hydrocephalus, with the symptoms of general paralysis, attended with increased heat and innumerable pulse. So far as the shape of the cranium is concerned, it is almost always restored to its normal symmetry, or nearly so; only the traces of rhachitical deposits, especially on the forehead, will remain during lifetime.

As a rule, it will be found that craniotabes not only tolerates, but requires the use of cod-liver oil. The passages are dry and white, and commonly contain a great deal of casein; and the first step in the right direction will be to prevent the solid coagulation of the milk in the stomach. To that end it is important not to give the milk unmixed, but to mix it either with simple gum, or, better, with a decoction of barley or oatmeal, these agents preventing the sudden contact of the gastric acid with the milk, and so preventing its firm coagulation as soon as it reaches the stomach. The general anti-rhachitic treatment—cold bathing, salt bathing, friction, the administration of iron, of phosphate of lime, of quinine—holds good for craniotabes, just as for general rhachitis. Concerning the administration of phosphates, Prof. Jacobi says that it is not improbable that phosphate of lime may be given with much advantage, even if a large portion of it is eliminated without having ever undergone assimilation. A great many cases of rhachitis are developed in conse-

quence of nothing but protracted nursing. In those cases where there is a good deal of passive congestion, he has seen a good effect from the constant use of ergot. Chloroform should be resorted to immediately whenever convulsions set in. Irritability of infants, and their tendency to go into convulsions, has been checked by an occasional dose of one-fiftieth of a grain of morphia. The attacks of laryngismus stridulus require very little treatment indeed. It will do good, however, to bring on the second stage—the stage of reaction—by changing the position of the child, and by sprinkling or pouring cold water over the face or head.

Cure of Hydrocele.—The following is the operation of Prof. E. A. Clark, as reported in the *Medical Archives:* The operation consists in making an incision about two inches in length over the region of the cord, and extending for the most part into the tumor, by which the fluid of the sac is evacuated, and the cord with its contents is left exposed, so that in the subsequent steps of the operation there is no possible danger of including the vas deferens in the wire ligature, which is then thrown around the cord by means of a needle armed with a wire. The needle is then detached, and the two ends of the wire are passed into and through the canula, and, after being tightened sufficiently to arrest the circulation of the vessels of the cord, is then fastened around the cylinder at the other end; but the loop should not be drawn so tight as to cut the vessels or nerves. This appliance is allowed to remain 36 or 48 hours, when the wire is snipped and removed without disturbing the wound, which should be previously closed by sutures.

The advantages of the operation are these: 1st, The certain obliteration of the blood-vessels, and the impossibility of the hydrocele returning, while the collateral circulation is quite sufficient to maintain the nutrition of the testicle, which we have never known to atrophy after the operation; 2d, An inflammatory process is not necessary to effect a cure, and by this method is avoided, with all its dangers; 3d, The cure is effected more speedily, only requiring the patient to be confined for five or six days, during which time he suffers no pain after the removal of the écraseur; 4th, There is less danger of doing injury to the testicle than when stimulating injections are used.

Case of Distended Abdomen.—Dr. A. C. White reports the following case for the *Richmond and Louisville Med. Jour.* He was called to see a girl, aged 17, and found her suffering with an enormously distended abdomen. Her friends thought her to be pregnant, although she had never menstruated. She had a cough, with dyspnœa and an excited pulse. Upon attempting to explore the vagina the hymen was found to be imperforate, a fluctuating tumor being felt between the labia. She was placed on the floor, and an incision was made through the hymen, ¾ of an inch long, when the retained menstrual fluid was ejected with great force, to the distance of ten feet, the flow continuing for several minutes. He estimates the quantity escaping at five or six gallons. The abdomen immediately became round, smooth, and symmetrical, no unfavorable symptoms following. She has since menstruated with perfect regularity.

Bee Stings.—A writer in the *Scientific American* says that a good absorbent will ease the pain of stings of bees. The best absorbing substance seems to be lean fresh meat. This will relieve the pain of a wasp sting almost instantly, and has been recommended in the cure of rattle-snake bites. It has also been used with marked effect in erysipelas.

Temperature in Tetanus.—Dr. Ogle thinks that it may be found that in tetanus the temperature always increases in the evening, and that a guide may thus be given for diagnosticating true tetanus from certain affections of the spinal cord and its membranes, certain cases of hysteria, and poisoning by strychnia, and other substances.—*Medical Gazette.*

Incontinence Treated by Chloral-Hydrate.—Dr. Wm. Thompson (*Lancet*) reports two cases of this. One, a girl twelve years old, had suffered for two years with incontinence at night and frequent desire to pass urine during daytime. Fifteen grs. of chloral, given at bed-time for two nights, relieved her, and the medicine was continued in ten-grain doses for a fortnight, at the end of which time she was cured. The second case was that of a boy, aged thirteen, who had suffered for seven years. Fifteen grains of chloral, given at bedtime, at once relieved him; but the medicine was continued for a fortnight, when he was quite well, and continued so when last seen, three weeks afterwards.—*Amer. Journal of Medical Sciences.*

Sulphate of Nickel in Neuralgia.—A case of obstinate neuralgia is related, which was cured by sulphate of nickel, in doses of half a grain, three times a day. At the end of a week one grain was given. Its relative action was speedily manifested in reducing the pulse and procuring sleep; all symptoms of the paroxysm disappeared.—*Oregon Medical and Surgical Repertory.*

Tincture of Iron in Acute Rheumatism.—Dr. J. R. Reynolds reports eight cases of acute rheumatism successfully treated by the tinct. ferri chloridi. The pain was quickly relieved, and convalescence speedily established. In some of the cases the heart was implicated. The quantity given was fifty or sixty drops every six hours.—*Chicago Medical Examiner.*

Opium Treatment in Diseases of the Heart.—Dr. J. P. Webb, in a review of an article on this subject (*Practitioner*), confirms the author, Dr. Clifford Allibutt's views, and concludes by saying: "My experience of what I shall take the liberty of calling the 'opium treatment of heart disease' has been limited as compared with Dr. Allibutt's; but I do not look upon it as limited any longer, for I consider his experience as simply confirmatory of mine; and I respectfully submit that it is neither to opium alone to the exclusion of morphia, nor to morphia alone to the exclusion of opium, nor to morphia and a syringe to the exclusion of both, but to the 'opium treatment,' in the fullest sense of the term, that we are to look for a sufficiently broad and liberal foundation upon which the further experience of the profession shall plant securely this important extension of the already numerous and valuable uses of opium.—*Pacific Med. & Surg. Journal.*

A mixture of pulv. steatite (soapstone), two parts, and hyd. chlor. mitis, one part, is the most elegant and effective dry application to the chafed skin of infants. Dry hyd. ch. mitis, applied once or twice a day to tumid and tender hemorrhoids situated about the anus, rarely fails to cure them in a few days.—*Dr. A. S. Hudson, in the Pacific Med. & Surg. Journal.*

Treatment of Chilblains.—Mr. Fergus recommends sulphurous acid in this affection. It should be applied with a camel's hair brush, or by means of a spray producer. One application of this usually effects a cure. The acid should be used pure. A good wash for hands or feet affected with chilblains is sulphurous acid, 3

parts; glycerine, 1 part; and water, 1 part. The acid will be found particularly useful in the irritating, tormenting stage of chilblains.—*Cinn. Med. Repertory.*

Belladonna in the Treatment of Spermatorrhœa.—Mr. R. M. Jones recommends the employment of belladonna in so-called cases of spermatorrhœa consequent upon loss of tone and irritable state of the generative organs, as having accomplished very beneficial results in his hands, even in extreme cases. He generally prescribes it alone, in gradually increasing doses, until the desired effect is produced. He gives it, occasionally, in combination with quinine, or the tincture of the muriate of iron, but not with better results, as he has reason to believe that in some instances the iron has a tendency to neutralize the efficacy of the belladonna. He thinks the belladonna seems to possess a decided superiority over the iron in soothing the irritable state of the generative organs that is generally present in these cases. It also seems to possess some slight aphrodisiac qualities.—*Cinn. Med. Repertory.*

Fatal Case of Metastasis to the Brain during Acute Rheumatism.—Dr. H. Priestley was called to visit a patient suffering from what at first seemed synovitis of the knee-joint. In a day or two well-marked rheumatism developed itself. The patient was seen daily up to the fifth day, and no unfavorable symptoms manifesting themselves, a favorable prognosis was given. On the sixth day he was hastily summoned to the patient, whom he found in articulo mortis. The patient had seemed restless for some hours, and the pain had suddenly left the joints, which she had moved freely. She became comatose and died.—*Cincinnati Medical Repertory.*

Milk the Propagator of Typhoid and Scarlet Fevers.—Drs. Ballard, of Islington, Bell, of St. Andrews, and Taylor, of Penrith (*Lancet*), have attempted to show that these diseases were propagated through the medium of milk—in one case a dairyman died of typhoid.

Hypodermic Injections of Quinine in Hemorrhagic Malarial Fever.—J. S. Weatherly, M.D., Montgomery, Ala. (*Rich. and Louisville Med. Journal*), writes that it is always preferable in this disease to give it under the skin. The patient soon gets under its influence, and nausea and vomiting are not increased. He has given as much as 24 grains hypodermically within 24 hours. It is important to have as near a neutral solution of the quinine as possible.

Painful Crepitation of the Tendons.—Dr. Francis H. Brown, of Boston, Mass. (*Boston Med. and Surg. Jour.*), alludes to the occurrence in his practice of several cases of inflammation of the sheath of the tendons, with crepitation, an affection mentioned in 1834, by Velpeau, in a clinical lecture given at la Pitié. Velpeau ascribes the crepitus to the friction of the tendon against the dry synovial sheath; its fluid being deficient from the inflammation of the part. The disease terminates by resolution. In the seven cases under his observation it has disappeared on prescribing rest and the use of evaporating lotions, or warm fomentations, or by the use of an external stimulant, such as the application of iodine. Its usual duration is ten days or a fortnight; but, in the cases he has noticed, want of normal power in the limb and a certain amount of tenderness about the part have continued much longer.

Test for Blood Stains.—J. W. Gunning (*Jour. of Applied Chemistry*) has discovered that acetate of zinc will completely precipitate the coloring matter of blood from solutions. The flocculent precipitate must be washed by decantation, left to evaporate and dry on a watch glass, and if blood is present the microscope will reveal delicate and beautiful hæmin crystals.

Carbolic Acid as a Local Anæsthetic.—Dr. C. Du Hadway, of Jerseyville, Ill. (*Med. Archives*), has been using carbolic acid for the last two years as an anæsthetic in the removal of ingrowing toe-nails, also in abscesses, etc. He regards it as one of the best anæsthetics for these purposes, and uses the crystal in a state of deliquescence, full strength.

To Prevent Pitting in Small-Pox.—In a case recently treated, in which the eruption so completely covered the face that it was almost impossible to place the point of the finger on it, without touching it in one or more places, Dr. J. C. Whitehill, of St. Louis, Mo. (*Med. Archives*), succeeded in *absorbing the "pocks" completely*, by anointing the face freely with a solution of carbolic acid, ℈j, and soda bisulph. ʒ ij, in an ounce of pure fresh glycerine, and causing each vesicle, as soon as formed, to be punctured with a finely pointed hard wood, and some of the solution introduced. At the same time light was excluded, as far as possible, from the room, and a liniment of croton oil used over the chest as a revulsive. Not a "pit" was formed on the face.

Case of Fracture of Clavicle from Muscular Exertion.—Dr. W. E. Whitehead, Asst. Surg. U. S. N. (*Pacific Med. and Surg. Journ.*), reports the case of a German, aged 28, who, while attempting to raise himself to the top of a platform, about eight feet high, felt something snap near his left shoulder-joint. The clavicle was found to be fractured, just at the edge of the trapezius muscle. In this case the trapezius muscle only extended to about the junction of the outer with the middle third of the clavicle. The fracture was transverse, and involved the entire bone. Crepitation was easily obtained by fixing the inner two-thirds of the clavicle, and moving the shoulder up and down by seizing the arm and making the motion. There was scarcely any swelling, and no discoloration of the tissues at the seat of fracture. The patient had a very large, muscular system, in a measure disproportioned to his bony skeleton; for his bones were small, and he had small hands and feet.

Excision of the Hip-Joint for Morbus Coxarius.—Henry F. Lyster, M. D., of Detroit, Mich. (*Trans. Mich. Med. Soc.*), reports 280 cases of this operation—being those recorded by Dr. Ashurst, Jr. (202), Dr. Richard Good (46), and 32 additional cases compiled by a committee appointed by the Michigan Medical Society. In those published by Dr. Ashurst, Jr., 113 recovered and 89 died; in Dr. Good's cases, 17 recovered and 29 died; in the Committee's tables, there were 16 recoveries and 16 deaths. The per cent. of recoveries from aggregated tables were as follows:—under 5 years, 58 per cent.; 5 to 10 years, 68 per cent.; 10 to 15 years, 60 per cent.; 15 to 20 years, 38 per cent.; 20 to 30 years, 31 per cent.; over 30 years, 16 per cent.; not stated, 33 per cent. One hundred and ninety-eight were males and eighty-eight females; not stated, 34. 72 operations were performed on the right side, and 74 on the left; not stated, 134. In regard to the utility of the limb, 103 proved useful, and 3 useless; not stated, 33; doubtful, 7.

A New Property of Camphor-Liniment.—J. Weichselbaum, of Savannah, Ga. (*Am. Jour. of Pharmacy*), finds that camphor liniment is an effective antidote to the itching of cowhage.

Injection into Hip-Joints.—M. Maisonneuve, of Hôpital de la Pitié (*Trans. Mich. Med. Soc.*), prefers, rather than excision of the hip-joint for morbus coxarius, fixing the joint by apparatus and using injections of tincture of iodine or of the liquor de Villate, for the purpose of obtaining anchylosis. The latter is prepared as follows:—

℞ Liquor plumbi subacetas..... ʒ iv.
Zinci sulphas (crystals),
Cupri " " āā.... ʒ ij.
Acetum vini albi,.....lb. ij. M.

Sunstroke.—The *Fremdenblatt* contains a correspondence from a traveller who, on March 23, 1866, was near the Dead Sea with a party of eighteen, one of whom fell from his horse overcome by the excessive heat of 42° R. (126.5° F.). One of the Bedouin guides bathed his hands, head, and face with lemon juice, after which the sufferer was able to ride two hours to the Jordan, where he could rest for several hours, and then completely recovered.

Compound Solution of Iodine in Chronic Diarrhœa.—Dr. E. L. Shurly, Manistee, Mich. (*Buffalo Med. and Surg. Journ.*), writes that of all diseases abounding in that region he has found none more intractable or formidable than chronic diarrhœa, which is always of malarial origin. In the treatment of these cases all of the astringents and tonics of reputed efficiency, in connection with quinia, have been tried in vain. Driven by these unsatisfactory results to some new mode of action, he prescribed, in several cases with effect, five drops of Lugol's solution in one-half tumbler of water, four times daily. The diarrhœa was entirely controlled by its use, and hepatic and splenic enlargements relieved.

The Determining Cause of Labor at Full Term.—Prof. A. F. A. King, National Medical College, Washington, D. C. (*Am. Journ. of Obstetrics*), discusses this subject, which has long been a matter of dispute with obstetricians, and states that the first determining cause of labor—the cause of "inherent," "insensible," peristaltic contractions—is distension of the uterus; this distension taking place as a necessary consequence of the womb having ceased to augment its capacity, while its contents still continue to increase.

Progressive Muscular Atrophy in a Child.—Dr. S. C. Busey, Washington, D. C. (*Am. Journ. of Obstetrics*), reports the case of a mulatto girl, aged 8 years, with progressive muscular atrophy, presenting the subjoined characteristic phenomena: 1st. The progressive muscular atrophy, probably supervening upon an attack of diarrhœa during the second summer. 2d. The very gradual loss of power, first exhibited positively in the tendency to fall forwards when walking. 3d. The regular development, in form, of the osseous system, and of the intellectual faculties. 4th. The total absence of electro-sensibility, except in a few muscles, and the retention of motility. Not only is this affection rare in females, but also in children. Meryon reports eight cases, four being brothers in the same family, and the other four belonging to only two families; Adams, one; and Hillier, three, two being females, one being three and a half years old.

Infantile Puberty.—Robt. P. Harris, M.D., Phila. (*Am. Jour. Obstetrics*), in an interesting article on "Early Puberty" observes that, from an examination of numerous reported cases of infantile puberty, the following conclusions may be drawn:

1st. With very rare exceptions, no matter how young the infant may be in whom the menses have made their first appearance, the mammæ are found unusually developed, and the pubes shaded with hair.

2d. The subjects have, in almost all instances, menstruated regularly, grown rapidly and vigorously, been somewhat inclined to obesity, and have not presented any signs of weakness resulting from the menstrual loss.

3d. This form of precocity appears to be little, if at all, dependent upon any climatic influence; the latter variety is undoubtedly accelerated by heat.

4th. The maturity of the uterine system is generally independent of any marked precocity of development in the mental faculties.

5th. Sexual passion, so general with precociously developed male infants, is seldom a marked characteristic in females of corresponding years.

6th. The first appearance of the menses is more common during the first, second, and third years of infantile life than it is in the fourth, fifth, and sixth.

7th. Infantile puberty is more common in the female than in the male sex, although in the latter there are cases which are quite as remarkable as any in the former.

To Prevent Pitting in Small-Pox.—I. H. Bird, M.D., Sioux City, Iowa (*Med. & Surg. Reporter*), uses an ointment made of charcoal and lard to prevent pitting in small-pox. This is applied freely over the surface of the face, neck, and hands, as soon as the disease is distinguished, and continued until all symptoms of suppurative fever have ceased. The application allays the itching, and seems to shorten the duration of the disease, and leaves the patient without a blemish, the eruption protected by the ointment not even showing signs of pustulation; the charcoal preventing the action of light, and lard that of air.

Tincture of Calendula in Phagedæna.—Thomas Kennard, of St. Louis, Mo. (*Med. Archives*), advocates the use of the tincture of calendula (garden marigold) as a local application in phagedæna. He has used it in preference to aromatic wine as a dressing for syphilitic sores for many years. It is also recommended as a stimulant and healing application for lacerated wounds, ulcers, or any breach of continuity of the surface.

Pistol Ball in the Heart Four Days.—Dr. G. F. Dudley, of St. Louis, Mo. (*Med. Archives*), reports the following interesting case: A male, aged 38, was wounded by a bullet from a small four-barrelled pistol, the ball entering the left chest about an inch to the left of the nipple. Four days after the accident the patient died. A post-mortem revealed that the bullet had passed between the fifth and sixth ribs through the lower lobe of the left lung, through the pericardium, and penetrating the left ventricle of the heart at about two-thirds way from the base to the apex, had passed through the cavity of the ventricle and lodged in the base of the heart at the junction of the ventricle with the auricle. There had been a small amount of hemorrhage into the pericardial sac.

The Therapeutic Value of Gelseminum.—Dr. Philip C. Williams, Baltimore, Md. (*Baltimore Med. Jour.*), in an extended paper on the value of "Gelseminum," believes that it will cure all pure, simple neuralgias of the cerebral system with promptness and efficiency; that it will relieve cerebral congestion; that it controls maniacal excitement, and a variety of conditions resulting from derangements of the central nervous system. For these and analogous disorders he recommends gelseminum as a most powerful and efficient remedy.

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THE SYSTEMATIC GRADATION OF MEDICAL STUDIES.

For the past five years the profession has taken more than the usual interest in discussing the subject of medical education. The American Medical Association, as the exponent of the professional view of the country, gave the whole matter a very serious consideration; but failing in any tangible results, it sanctioned the formation of an auxiliary body, the Convention of Medical Teachers. After three years of hard work and much discussion, this Teachers' Convention could go no further than make some suggestions to the schools as to the proper course which should be pursued. With these views our readers are already sufficiently familiar. Although nothing more than a pretty thorough ventilation of the whole subject was gained at the time, still the agitation and discussion have not been barren of tangible results. The extension of the lecture term was one of the points particularly urged. The medical press, echoing the opinion of the profession at large, proved that the faculties of our colleges were, for some reason or another, slow to appreciate the advantages which might grow out of such a change. After a while, however, we find that the colleges wake up to their interests, and lengthen their terms by spring and summer courses. These, with the regular sessions, are now made to extend over a period of seven or eight months. So far, then, a step has been taken in the right direction, and the action of such schools deserves, as an acknowledgment, the liberal patronage of the profession. But the taking of any of the extra courses is not obligatory on the students, although every inducement is otherwise offered to those who may avail themselves of the extra advantages. In some cases the fees paid for the extra course are deducted from those of the regular, in other cases the matriculation and dissecting tickets are good for both sessions, and in all the extra certificates of attendance on the summer and preliminary terms are counted as so much time spent in the study of medicine under the direction of a practitioner. All this is exceedingly gratifying to the friends of educational progress, and gives an earnest that our representative colleges at least are alive to the real interests of the rising medical generation. Take, for instance, our three New York medical colleges. Every one has increased its term of study, and each one vies with the other in offering the best advantages of medical education to its matriculants. As the particular friend of neither of these schools, but as the well-wisher of all, we would that they would go further in the good work.

This, in our opinion, they can do, in common with the other representative colleges of the country, by taking advantage of their extended lecture term in grading the studies to suit respectively the first, second, and third course students. A great deal has been said upon the practicability of this course, some favoring it and others condemning it. To the former class we unqualifiedly belong. Five years ago (vide Med. Record, vol. 1, page 237) we took occasion to urge the feasibility of dividing medical classes into three grades. This was done before any definite action had been taken upon the subject, or any recommendation made either by the American Medical Association or the Convention of Medical Teachers. We do not mention the fact in this connection for the purpose of proving that we led professional opinion, but simply as a reminder that we thus early took what may eventually prove to be the strong side. It may not be out of place to quote what we then said upon the subject:—

"Next in importance to the extension of the lecture term, and naturally growing out of it, is the systematic division of the medical class into grades that will respectively meet the requirements of the first, second, and third-course student. At present lectures upon any subject are given promiscuously to one class, and the student of the first year sits beside the one who is receiving his third course; and each has to choose for himself what he thinks he can appropriate. The beginner bewilders himself with terms the meaning of which he is not prepared to appreciate, while the second and third-course students vainly strive to confine their attention to the most elementary subjects. Viewing the lectures as a whole, they are of great benefit to the class; for what will not suit one is sure to be just what the other may want. But this lack of system is most ruinous not only to the student's habits of thought, but to the disposition he may have to confine his attention strictly to those subjects which are fitted to his capacity. He is virtually left to himself to choose his own course; and without being under any special restraint from the faculty, can just as well take up the study of midwifery before he has a knowledge of the bones of the pelvis, as waste his misdirected energies upon surgical operations before he has grounded himself in anatomy. Such students, and these are very much in the majority, have a strange perversity for commencing at the tail of their studies and working up. They can hardly be blamed for this either, as the subjects which they are led to prefer offer many more attractions for them than those which properly form the groundwork of their studies. The elementary branches are uninteresting to them, because they cannot see their practical application; and they place them aside 'for a more convenient season,' when, they persuade themselves, they shall be better able to relish them, really looking

upon their studies as amusement rather than actual work.

"This desultory mode of study is directly attributable to the want of a proper division of the work by the professors. It is true that the recommendations which each professor gives to the members of his class, as to the course that they should pursue, are sometimes heeded; but from the want of strict regulations to enforce such precepts, thorough instruction is shorn of one of its chief advantages.

"There should be more than a mere recommendation to study such and such a branch, such and such years; the college should insist upon its enforcement.

"The only way they can do this is to divide up the class into three separate ones; each class having its own branches for study, and no other. The elementary class should be composed of first-course students, the next highest of second-course, and the senior class of the third-course students. In order that each class should be fitted for a higher grade, they should be examined at the end of each term, and if not qualified, should be thrown back, to go over the course again."

There are many leading minds of the profession who condemn this plan, affirming in the main that medical studies are of such a peculiar character that they require to be constantly reviewed in order to be impressed upon the mind. In that view the promiscuous attendance of students upon the usual courses serves a better purpose in the end than any systematic division can do. It has been also urged that such a radical change would damage the patronage of the schools. These, with other reasons, more or less familiar to every one who has studied the subject, have created a backwardness among our colleges in taking the initiative.

It strikes us that the promises for the success of such a feature in college instruction are sufficiently good to invite a fair trial. The initiative has, in fact, been already taken. The Woman's Medical College of this city, as we are at present informed, has the credit of being the pioneer in such a movement. For a year or more it has so arranged the plan of instruction as to secure a gradation of studies through three years of the student's course. The class in attendance is divided into three grades, corresponding respectively to the three years of study. An examination is held at the end of each term for promotion.

As a young, though worthy institution, the results which may attend its laudable endeavors to solve the problem of medical education must carry with them a certain amount of weight. More significant, however, of good results to the schools at large, is the recent action of the Medical Department of Harvard University, which has likewise changed its plan of study. The Harvard Medical School now requires the regular course of study to occupy three years, and to be divided into three grades respectively, as follows:

Anatomy, Physiology, and General Chemistry, for the first year.

Medical Chemistry, Materia Medica, Pathological Anatomy, Theory and Practice of Medicine, Clinical Medicine, Surgery and Clinical Surgery, for the second year.

Pathology, Anatomy, Therapeutics, Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery and Clinical Surgery, for the third year.

Examinations on all the subjects are to be held at the beginning, middle, and end of each year, and unless these are passed the student cannot take a higher grade. The plan goes into effect the coming fall, but will not interfere with students who have already entered the school, unless by their choice. By way of a compromise, students are allowed to take a partial course without an examination, in which case they receive only a certificate of attendance. Those, however, who desire to enter the second or third classes, are required to pass the requisite examinations. The fees are slightly in advance of the other schools, that is for the year, but the course is proportionately extended.

It is true the new plan is but an experiment, but we hope, in the interests of medical education, that it may prove to be such a success that our large and representative schools in this and other cities may not only practically endorse it, but be ready with improvements. In any event the results of the innovation will be eagerly watched, not only by those specially interested in the welfare and prosperity of our schools, but by all who advocate a higher standard of medical education.

Not long since we had occasion to commend the action of the State Society in allowing authors to publish their papers before the same appeared in the Transactions. The New York Academy of Medicine has recently endorsed the expediency of such a measure by following the example. There was a time when this same Academy of Medicine absolutely refused to allow reports of its proceedings to appear in medical journals before they had been officially published in the "Bulletin." Any medical periodical that chose to print the proceedings had either to wait for two or three months until "a form" of the Bulletin had been filled and published, or dispense with them altogether. The latter course was chosen in view of a persistent and punctilious illiberality on the part of a few of the trustees. The consequence was that the Society was content to bury its light under a bushel, and outside of the immediate circle of its membership nothing was known of its proceedings; the members, aware that their audience was restricted, lost interest in the meetings, and for a long time it was difficult to bring together a quorum. Finally, with a change of administration more liberality crept into its counsels, and the publication of its meetings was tacitly allowed; the members came out with interesting papers, and now the Academy has its benches well filled by most active workers. We shall only relate facts, leaving their interpretation to such as have become practically familiar with the benefits of publication in a periodical. The medical press made the reputation of the New York Pathological Society by stimulating its members to appear creditably before large medical audiences; it

was the medical press that placed the County Society of New York and the Medical Library and Journal Association in their present positions; and the New York Academy of Medicine, though the last among our great institutions to acknowledge its benefits, will not be too late to re-establish her ancient prestige.

We present, in accordance with our custom, a full report of the meeting of the American Medical Association. It has been prepared from the papers of that city, principally the *Daily Morning Bulletin*. We take this occasion to thank Messrs. George P. Rowell & Co., advertising agents, of this city, for complete files of the California journals.

Reviews and Notices of Books.

LETTERS TO "THE TIMES" ON SMALL-POX ENCAMPMENTS, and a word on the Contagious Diseases Acts. By Surgeon-Major T. ATCHISON. London: T. Richards, 37 Great Queen street, W.C. 1871.

THE author of these letters, having had much experience with contagious diseases in India, is a strenuous advocate of the plan of establishing encampments of tents or huts, for the complete isolation of patients suffering from small-pox. He claims that by this means the spread of the disease might be entirely checked. His recommendations are evidently those of a thoroughly practical physician, and we understand they have been favorably received, and partially carried out by the authorities of many towns in England.

CLINICAL REPORT OF THE ROTUNDA LYING-IN HOSPITAL (Dublin), for the year ending 5th November, 1870. By GEORGE JOHNSON, M.D., Edin., Fellow of the King and Queen's College of Physicians, Master of the Rotunda Lying-in Hospital, etc., etc. Dublin: John Falconer. 1871.

THIS elaborate clinical report is reprinted from the *Dublin Quarterly Journal of Medical Science*. It has the great value of being at the same time full and authentic, and embodies the actual results of clinical observations in a large series of cases, many of them exceedingly interesting. Several carefully prepared tables accompany the report.

GENERAL SURGICAL PATHOLOGY AND THERAPEUTICS, in fifty Lectures. A Text-book for Students and Physicians. By DR. THEODOR BILLROTH, Professor of Surgery in Vienna. Translated from the fourth German edition, with the special permission of the author, by CHARLES E. HACKLEY, A.M., M.D., Surgeon to the New York Eye and Ear Infirmary, Physician to the New York Hospital, Fellow of the New York Academy of Medicine, etc., etc. New York: D. Appleton & Co., 549 and 551 Broadway. 1871.

VERY few medical works have had the good fortune to attain, in so short a time, the universal popularity enjoyed by Dr. Billroth's volume on Surgical Pathology. The intrinsic value of the work is abundantly guaranteed by the fact that it has already reached its fourth edition in Germany; and Dr. Hackley, the able translator, has conferrred a boon on the English-reading members of the profession in this country and Great Britain, by placing within their reach the latest views and opinions of one of the most progressive pathologists of the age. Indeed we cannot be too thankful for the accuracy and elegance of the translation, remembering, as we must, how grievously some writers have suffered at the hands of their translators.

To give a critical review of the teachings of Dr. Billroth would be to review in detail the whole subject of surgical pathology. We have not space for this, nor is it at all necessary. We shall content ourselves with pointing out the general scheme and scope of the work, feeling sure that every member of the profession will desire to read and judge it for himself. As a text-book for students it will be found eminently complete and satisfactory, representing, as it does, the latest views of the leading pathologists of the day.

The introduction treats of the relation of surgery to medicine, and points out the necessity to the physician of an acquaintance with both branches. A very interesting historical sketch is given of the origin of surgery, and the methods which have been adopted in its study. The author pays a tribute, in passing, to the discoverers of the anæsthetic effects of ether, Drs. Morton and Jackson, and to Dr. Simson, for the introduction of chloroform. He regards German surgery, at the present day, as standing equal to that of other nations, and "perhaps even superior to that of France." He then proceeds to take up, in succession, the treatment of incised wounds of the soft parts, and of punctured, contused, and lacerated wounds, with their various modes of healing, and the changes in the tissues incidental to those processes. A very extensive clinical experience is evidently brought to bear on the discussion of these important subjects, and no undue prominence is given to theoretical over practical considerations. Speaking of constitutional treatment in fevers following surgical injuries, he impresses on the physician the great importance of giving personal attention to the diet and management of the patient. "The physician," he says, "should know as much about the cellar and kitchen as about the apothecary shop, and it is even well for him to have the reputation of being a gourmand."

Several chapters are devoted to fractures, injuries of the joints, gunshot wounds, and acute inflammation of the bones, periosteum, and joints. The subject of gangrene is treated exhaustively. The author's advice in regard to amputation is emphatic. He recommends no operation until the line of demarkation is distinct. If the patient dies before this line is formed, he says, we may rest assured he would have died even sooner if amputation had been performed. As an antiseptic, he has found permanganate of potassa far inferior to other remedies—as creasote, carbolic acid, oil of turpentine, etc. The subjects of septicæmia and pyæmia receive, as might be expected, a full share of the author's attention, and we find nothing to criticise in his therapeutic recommendations. We shall hardly judge, however, from his remarks on hygiene, ventilation, and hospital management generally, that the author has yet had the opportunity of reviewing the surgery and hospital practice pertaining to our late war.

We regret that our space allows us to do no more than refer to the admirable articles on deformities and diseases of the nerves, muscles, tendons, fasciæ and ligaments, varices and aneurisms, and especially to the chapters on tumors. Suffice it to say, that the profession will find in this volume, not only much that is original, but also a critical *résumé* of a vast amount of valuable matter that is scattered throughout the medical literature of several nations. The value of the work is greatly enhanced by the illustrations. There are one hundred and fifty-two wood-cuts, most of them showing microscopic appearances, executed in a style highly creditable to the publishers. We anticipate for Dr.

Billroth's work a high and permanent position among our standard medical books.

CHEMISTRY: GENERAL, MEDICAL, AND PHARMACEUTICAL, including the Chemistry of the United States Pharmacopœia, a manual of the general principles of the science and their application to medicine and pharmacy. By JOHN ATFIELD, Ph.D., F.C.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, Honorary Corresponding Member of the Society of Pharmacy of Paris, etc., etc. From the second and enlarged English edition. Revised by the author. Philadelphia: Henry C. Lea. 1871.

THERE are already so many text-books in chemistry that it would seem difficult to introduce anything new in the method of teaching that branch of medicine, yet we find much to commend in Mr. Atfield's manual, which differs materially from other text-books. In the first place, much matter relating to compounds of interest only to the scientific chemist is excluded. In the second place, it contains "the chemistry of every substance recognized officially, or in general practice, as a remedial agent." The introductory chapter is very brief, and deals with the leading properties of the elements. Then follows the consideration of elementary and compound radicals in their synthetical and analytical bearings. The chemistry pertaining to animal and vegetable substances is then taken up, and is followed by practical toxicology, and the chemical and microscopical characters of morbid urine. Considerable space is devoted to the study of quantitative analysis. In the appendix we find a long table of tests for impurities in medicinal preparations. The arrangement of the matter is such that the same classes of facts and principles are brought several times under consideration, each time from a different point of view, thus materially aiding the memory in retaining the most important facts. The metric system of weights and measures is used only in the sections on quantitative analysis. Each chapter is followed by a series of questions designed to test the knowledge of the student.

The author has taken pains to revise his work with special reference to the wants of American students, introducing the materia medica of the United States Pharmacopœia, and making sundry other additions, which altogether render it one of the most desirable text-books on the subject of chemistry that the student can obtain. Having spoken well of the contents of the book, we are sorry we cannot compliment the publishers on its appearance, for it is issued in very homely fashion, and presents an exterior worthy of the last century.

INSANITY AND ITS TREATMENT: Lectures on the Treatment, Medical and Legal, of Insane Patients. By G. FIELDING BLANDFORD, M.D., Oxon., Fellow of the Royal College of Physicians in London, &c. With a Summary of the Laws in force in the United States on the Confinement of the Insane. By ISAAC RAY, M.D. Philadelphia: Henry C. Lea. 1871.

THE author does not claim for this volume that it is a complete treatise on Psychology, but believes that it may serve as a convenient hand-book of insanity. The basis of the work was a course of lectures delivered before the school of St. George's Hospital; but the matter of the lectures has been thoroughly revised and considerably amplified, so as to render the book really something more than is claimed for it, though the easy style of the lecturer is preserved. The author declares, in the preface, his conviction that "the only method by which we shall obtain an insight into the mysterious phenomena of unsound mind, is to keep ever before us the fact that disorder of the mind means disorder of the brain, and that the latter is an organ liable to disease and disturbance like other organs of the body, to be investigated by the same method, and subject to the same laws."

The great importance to the physician of some definite knowledge on the subject of insanity is ably presented in the opening chapter, and the method of study is clearly pointed out. The author then proceeds to discuss the phenomena of mind, and the conditions necessary for their healthy manifestation; passing thence to the pathology of insanity in all its varieties, and the morbid appearances of the brain and other organs after death. In regard to the classification of insanity, Dr. Blandford would reverse the order adopted by the Medico-Psychological Association, and "note in the first place the mental symptoms observable at the time of inspection, and afterwards assign to these their pathological significance, if the history or symptoms enable us to do so." After treating of the causes of insanity, the author expresses his belief that lunacy is upon the increase among the lower classes of Great Britain, but not among the upper classes. In support of this view, he gives abundant statistics, and he thinks the increase of insanity largely due to the abuse of alcohol. He says: "It is to be feared that our lower orders are in no degree reformed in the matter of drink. Notwithstanding the exertions of temperance societies, the amount of drunkenness still prevalent is enormous, and is almost confined to the lower orders—the working men—below the shopkeeper class. Making all allowance for the highly-colored pictures drawn by the advocates of total abstinence, it is probable that intemperance is on the increase rather than decreasing. Hence, I believe, springs the ever-renewed insanity of our lower classes." Again the author says: If we could ascertain accurately the statistics of insanity in other countries, civilized, semi-civilized, or barbarous, I think it is probable that we should find insanity in proportion to the use of intoxicating liquors or substances." Masturbation is not regarded as a frequent cause of insanity, though it may light up the disorder where there is a predisposition to it. Generally, masturbation is only a concomitant of insanity.

Two of the lectures deal with the paralysis of the insane, its varieties, diagnosis, prognosis, and treatment, and are full of valuable information. The author devotes much space to the care and treatment of insane persons, and the moral duties of the physician in his dealings with this unhappy class of patients and their friends. In regard to treatment, the recommendations are evidently dictated by large experience and careful observation. Like stress is laid on the importance of early treatment by the family practitioner, and the adoption, where necessary, of a prudent system of restraint or surveillance. Much valuable advice is given in the closing lecture on the examination of patients, and the means of estimating insanity. In making statements concerning such patients, the author inculcates the use of plain and definite language, and the avoidance of such vague terms as incoherence, excitement, fatuity, etc.

The value of the work to the profession in the United States is enhanced by the Appendix, which furnishes a summary of the laws in force in all the States. If we were asked to name the most useful volume on insanity, for the purposes of the student and general practitioner, we should unhesitatingly give our preference to that of Dr. Blandford.

SYNTHESIS OF CONIIN.—H. Schiff (*Jour. of Applied Chemistry*) has succeeded in preparing artificially the alkaloid coniin.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 16th, 1871.

Dr. E. R. Peaslee, in the Chair.

DIAGNOSIS OF MALIGNANT DISEASE OF THE OVARIES.

A certificate of membership was granted to William B. Neftel, M.D.

The resolution adopted by the Suffolk District Medical Society, approving the course of the United States Commissioner of Pensions in rejecting irregular practitioners as pension-examiners, was indorsed by the Academy, with the suggestion that the Hon. Secretary of the Interior sustain the Commissioner in his course. This resolution is to be accompanied with a petition signed by the Fellows of the Academy.

T. Gaillard Thomas, M.D., then read the following paper, entitled "A Clinical Contribution to the Diagnosis of Malignant Disease of the Ovaries," of which the following is an abstract:—

In arriving at a just estimate of the results of the operation of ovariotomy two facts should always be borne in mind; first, that many cases of gastrotomy have been reported under the name of ovariotomy; and second, that a large number of true ovarian operations have been undertaken in entirely inappropriate cases in consequence of erroneous diagnosis. By every one who examines the records of this subject, even superficially, these two facts must be recognized as depreciating very markedly the statistics of ovariotomy.

The true and only meaning which should attach to the term ovariotomy is the removal of one or both ovaries. Gastrotomy is a kindred, but not identical procedure, and should never be confounded with it, either as to its indications or results.

At present no progressive gynæcologist will question the propriety of performing gastrotomy for the removal of other than ovarian tumors when they threaten life, and when operative interference promises a prolongation of existence and diminution of suffering. I am not considering this question now, however, but merely stating what all will admit, that gastrotomy thus performed should no more be classified with ovariotomy than should the Cæsarian section.

Solid tumors of the ovary are very rare, and although ovariotomy may be occasionally indicated for their removal, it may, I think, with propriety be stated that the truly legitimate field for this operation—the crowning surgical achievement of our country—is the removal of one or both ovaries when affected by cystic degeneration.

The diseases which have been most commonly confounded with ovarian cyst, and induced a resort to ovariotomy by reason of erroneous diagnosis, are the following: Fibro-cystic tumors of the uterus, abdominal dropsy, colloid degeneration, having for its base the peritoneum and abdominal viscera, of the ovaries, or, as I have seen in two cases, the uterus, and malignant disease of the ovaries. Instances are not wanting in which pregnancy, phantom tumors, uterine fibroids, cystic degeneration of the kidneys, and other conditions have given rise to errors of diagnosis; but these have rarely done so, while those which I have just enumerated have frequently misled operators of skill and experience. Instances of these affections will often present themselves in which the most experienced diagnostician will be able to arrive at a positive conclusion only by the aid of paracentesis or an explorative incision, and a certain number will be met with in which even with these means at his disposal the most cautious operator will be led into error.

Nothing will so powerfully tend to give the operation of ovarian extirpation its proper and legitimate position among the resources of surgery, and thus enlarge its sphere of usefulness, as the acquirement of a skill in diagnosis on the part of those who are called upon to perform it, which will serve to point out with system and certainty the cases to which it is peculiarly applicable, as well as those for the relief of which it holds out scarcely a forlorn hope. It is with the desire of aiding in the accomplishment of this result that I now appear before the Academy of Medicine.

The essay which I present this evening has for its object the presentation of clinical facts bearing upon the diagnosis of malignant diseases of the ovaries, and offering themselves as means for the differentiation of these affections from benign growths. I recognize the great difficulties attending such differential diagnosis, and desire carefully to avoid all dogmatic statements and positive conclusions concerning it, and to confine myself strictly to deductions which may be drawn from the histories of cases which I shall present.

[After taking a rapid survey of the existing views of pathologists as to cancer of the ovaries in general, and colloid cancer, Dr. Thomas proceeded with the pathological anatomy of the cancerous diseases which affect the ovaries.]

I shall make an attempt at classification of the most common forms of the disease, based upon the descriptions of some of our most respected modern authors, as for example, Klob, Favre, Scanzoni, Rokitansky, Kiwisch, and Courty.

1st. The ovary may be affected by true scirrhous degeneration. This form of cancer is decidedly rare; occurs usually in advanced life, and generally creates a tumor not larger than a large orange. It develops slowly, and presents the physical appearance of scirrhous disease in other organs. It may be a primary malignant development, or it may occur in the ovary secondarily, its primary development having been previously recognized in some other part of the system.

[2d. The ovary may be the seat of medullary cancerous deposit, which may originate in the vesicles of Degraaf, in a corpus luteum, as Rokitansky once saw it do, or in the stroma of the organ. Distension sometimes causes rupture of the tunica albuginea of the ovary, and then exuberant medullary growth develops in contact with the peritoneum and abdominal viscera.

3d. Scirrhus or medullary cancer may alone or united attack the wall of a cyst and develop either as an endogenous or exogenous production. The cancerous matter so completely invades the cyst walls in some cases as to make it appear that cystic degeneration had occurred secondarily to its deposit.]

4th. From the wall of a cyst vascular arborescent villi may project, lining the cavity, and in time filling and distending it so as to cause the rupture of its walls. Then the exuberant cancerous element develops and secretes in immediate contact with the peritoneum, and produces either a dangerous peritonitis or abundant abdominal dropsy.

With this form of cancer colloid degeneration is often associated, when it constitutes that variety which has been described by Cruveilhier as alveolar cancer.

The mere presence of villous projections from a cyst

wall must not be regarded as necessarily stamping the growth with malignancy, for it is not rare to see benign papillomatous projection arising from such localities. Dr. Peaslee informs us that fifteen or eighteen years ago he removed an ovarian cyst which was thus studded with arborescent villi, which at the time he strongly suspected of malignancy. The patient, however, not only entirely recovered from the operation, but is living at the present time, never having had any development of kindred degeneration elsewhere.

The recognition of the fact that the ovarian disease which affects a patient partakes of the character of any one of the forms of cancer just enumerated, must ever be a matter of great moment, for upon it must depend not only our prognosis but the determination to adopt or reject the operation of ovariotomy. If the case be one of true cancer, operative procedure will accomplish little if any good, while it exposes the unfortunate sufferer to pain, prolonged sickness, and the danger of death.

[Before entering upon the relation of illustrative cases, Dr. Thomas then went on to point out the doubt existing as to the true pathological nature of ovarian tumors, such as he described, and which were ordinarily termed cancerous. Those with which he had met had resembled cauliflower excrescence of the uterus rather than true carcinoma of scirrhus or medullary character, and had appeared to partake of the nature of vegetating epithelioma.]

The cases which I shall now proceed to relate will serve to show the difficulties surrounding diagnosis, and the symptoms which point to the character of the affection.

Case I. *Malignant Disease of the Right Ovary.*—Mary M., aged 21 years, single, a cook by occupation, was sent to me by her employer, on account of an abdominal enlargement. Upon examination I found her sallow, almost jaundiced in appearance, very large about the abdomen, and exceedingly weak. She informed me that just one year before that time she had noticed a slight abdominal enlargement, which had steadily and rapidly increased. At the same time she had undergone rapid emaciation, grown very weak and low-spirited, and now felt that, unless relieved very soon, she would die from exhaustion. Physical exploration revealed a large accumulation of fluid in the peritoneum, and, in addition, a round movable tumor occupying the whole of the left side of the abdomen.

Although the case was not looked upon as a favorable one for operation, it was determined that extirpation should be resorted to. Accordingly, in the presence of Drs. Otis, Swift, Reynolds, Finnell, and Hull, I undertook the operation.

The patient having been anæsthetized with ether, I cut down slowly through the abdominal walls into the peritoneum. Instantly a large amount of peritoneal fluid escaped, a much larger amount, indeed, than had been computed in the diagnosis. After its escape I found in the left side of the abdomen a solid mass about the size of a large cabbage, and resembling in feel and appearance an ordinary cauliflower. This was attached to the broad ligament at about the point ordinarily occupied by the ovary. It was too large for removal through the small opening which I had made, but this being enlarged it was readily turned out. Securing the pedicle, which was short, by two strong hempen ligatures passed through its centre, it was returned, after removal of the growth, to the abdomen, and the abdominal incision closed by interrupted silver sutures. The patient rallied well after the operation. On the morning of the eighth day I succeeded in getting near enough to her to find that the pulse was beating at 160 to the minute, and that the breath yielded a sweetish odor like sugar-cane. I was now convinced that she was suffering from septicæmia, and that the mania which had supervened was due to it. But even with this knowledge nothing could be done in the excited state of the patient. She remained in the maniacal state which I have described till evening, when she sank into coma and died. No *post-mortem* examination could be obtained.

This case presented all the most striking features of malignant disease of the ovary. The development of a solid tumor, soon followed by immense accumulation of abdominal fluid, decadence of strength, cachectic appearance, all coming on in one only 21 years of age, pointed as plainly as symptoms ever pointed to the probability of the existence of malignant ovarian disease. This was, however, the first case with which I had met, and this fact must plead my excuse for not suspecting its nature.

Of the gentlemen who saw it with me, none supposed it to be other than an ovarian cyst accompanied by a certain amount of abdominal dropsy.

The features of the case, which should have excited our suspicions, were the excessive amount of ascites with a small tumor, the great and rapid enfeeblement of one previously in good health, and the marked appearance of cachexia.

Case II. *Malignant Disease of the Left Ovary.*—This was the case of a multipara, aged 28 years, under the care of Dr. Noeggerath, who first performed paracentesis and then ovariotomy upon her. The patient died on the sixth day. No *post-mortem* examination was made. Dr. Noeggerath felt satisfied that the case presented an example of the alveolar cancer of Cruveilhier.

While I consider this case as one of true alveolar cancer, I cannot but admit a doubt as to the fact. Considering it as malignant it presents a very good illustration of the great difficulties which attend diagnosis under these circumstances. Here no abdominal dropsy, cachexia, marked depreciation of strength, or decided emaciation existed; and neither paracentesis nor explorative incision would have thrown light upon the nature of the disease, since all the morbid growth was endogenous.

Were the counterpart of the first case which I have reported to come before me with my present experience, I feel confident that I should not again err in diagnosis. Were the counterpart of the second to present itself, I fear that its nature would escape detection.

Case III. *Malignant Disease of both Ovaries.*—The patient, aged 27 years, presented herself on account of what she supposed to be ascites, due to some disease of the liver. About three months afterwards Dr. Thomas operated upon her and found attached to each ovary soft fungous growths, which were removed. On the fifth day after the operation she died. Portions of the growths removed were examined microscopically by Prof. H. B. Sands, who described their appearance thus: "Sections of the tumor, when examined under the microscope, exhibited the following elements: 1st. Connective tissue slightly vascular, arranged in the form of villi, either club-shaped or conical. 2d. Flat epithelium, in several layers, covering the villi, but not present in their interior. The appearances observed were those commonly seen in epithelial or cauliflower growth."

In this case, although the facility of diagnosis was much impaired by the great thickness of the abdominal walls, a strong suspicion, at least, of the nature of the disease existed. This was not strong enough to make me feel authorized to dissuade the patient from availing herself of the possible advantages of extirpation, and

hence I style the opinion entertained a "suspicion" rather than a "diagnosis."

The nature of the disease was predicated upon these three facts: First, the great rapidity of development; second, the immense amount of peritoneal effusion which crowded aside the abdominal viscera so as to cause a disappearance of resonance over the anterior abdominal wall; and third, the existence of two hard masses obscurely discoverable in the iliac fossæ after evacuation of the fluid. It may be said that this evidence was not sufficient for a diagnosis. I so fully agree in this view that I have alluded to my deduction from the evidence as a suspicion only.

Case IV. *Malignant Disease of one Ovary*, being almost a repetition of Case V., is omitted.

Case V.—On the 24th of Nov., 1870, I was called by Dr. W. K. Brown, of Brooklyn, to see with him Mrs. G——, aged 48 years, the mother of a large family. About five or six months before the date which I have given the patient noticed a general depreciation of strength, and was alarmed by the discovery of a hard and painful lump in the right iliac fossa. A prominent obstetrician of this city was called upon to examine this growth, and pronounced it a fibrous tumor of the uterus. In spite of a tonic and sustaining course, the patient grew more and more feeble, and the abdomen became greatly distended by accumulation of fluid. In this case, as in Case IV., I was struck by the fact that in the dorsal decubitus no point of resonance could be discovered upon percussion over the abdomen, which I attributed to the excessive amount of effusion. To make more certain a diagnosis at which I had even now partially arrived, I drew off several large pailfuls of straw-colored serum. I found in the right iliac fossa a round, hard, somewhat sensitive tumor, the size of the head of an infant at birth. This could be pushed about in the pelvis, and was, Dr. Brown assured me, larger than it was when discovered some months before. I ventured a positive diagnosis of malignant disease of the ovary.

The patient has been tapped three times since Dr. Thomas first performed paracentesis, and Dr. Brown, writing on the 11th of March, says that in two or three weeks paracentesis must be repeated for the fourth time in as many months. The strength, appetite, and digestion are now good, and the tumor, though larger, is not the source of much pain.

As to his impressions of the diagnosis, Dr. Brown courteously defers to my opinion; but evidently feels in doubt about it, as his experience, he says, has furnished him with no similar cases.

In this case the diagnosis, which of course is as yet doubtful, was based upon these facts: Here is a lady who becomes rapidly enfeebled and puts on a cachectic appearance at the same time that she discovers a solid tumor over the site of one ovary; this is sensitive, movable, and, to my appreciation, not attached to the uterus. I know of no disease which is likely to exist, and by its existence explain the phenomena of this case as malignant disease of the ovary.

The circumstances which more prominently point to the development of the disease are:

1st. The rapid development of a solid tumor in an ovary, with—

2d. Marked depreciation of the strength, vital forces, spirits, and general condition of the patient.

3d. The occurrence of œdema pedum and spanæmia at an early period, and, consequently, dependent upon a general blood state and not the consequence of pressure by the tumor.

4th. Lancinating and burning pains through the tumor.

5th. Cachectic appearance.

6th. The occurrence of ascites without evidences of cirrhosis or other hepatic disease, organic disease of the kidney or heart, or chronic peritonitis, the fluid accumulating in such large amounts as to force aside the supernatant intestines and produce dulness in place of resonance on percussion in dorsal decubitus.

Cystic degeneration of the ovary sometimes advances with great rapidity, and is accompanied in its course by rapid emaciation, marked physical prostration, ascites, and a cachectic appearance.

It may be asked whether a case thus complicated would not present the very conditions which have been pointed out in this essay as furnishing grounds for the diagnosis of malignant disease. Unquestionably it would; but let it be remembered that while these symptoms are mentioned as valuable aids to diagnosis, I do not pretend to maintain that they will always enable the diagnostician to avoid error. Again, in citing ascites with a small tumor as a most important symptom of malignant ovarian disease, I do not allude to slight or even moderate effusion with a large growth, but a markedly disproportionate amount of fluid, a great deal of abdominal effusion with a very small tumor.

Besides the condition just mentioned there are two others which may create difficulty in differentiation from ovarian cancer,—one is pregnancy in the middle or latter months, complicated by peritoneal effusion; the other, a uterine fibroid existence with cirrhosis of the liver, with its attendant dropsy. The first may generally be known by its characteristic symptoms; while the second, although it might be recognized by the physical and natural signs of uterine fibroids and of cirrhosis, would very likely give considerable trouble in diagnosis.

When difficult and obscure cases present themselves in which a positive diagnosis becomes impossible by ordinary means, paracentesis or explorative incision should be resorted to rather than that the patient should be deprived of the prospect for cure held out to her by ovariotomy. Very often the most doubtful case may be satisfactorily settled by evacuating the abdominal effusion and passing the index finger through a small opening in the peritoneum so as to touch the morbid growth. In certain rare cases, such an one for example as Case II. of this essay, even this would not suffice to remove all doubt.

In concluding this paper it may not be without interest to allude more particularly to the great amount of abdominal effusion which in cases of ovarian cancer constitutes such an important symptom. It is probably to a certain degree the result of peritoneal secretion stimulated to excess by the irritation established by contact with the exuberant morbid growth, which having burst its ovarian bounds crops out into the peritoneal cavity. To a certain extent the accumulation is probably also due to a secretion from the free surface of the cancer itself.

Dr. Emil Noeggerath regarded the paper of Dr. Thomas as one of great importance, and thought it time to fill up the gap now existing in the diagnosis of tumors, thereby avoiding unnecessary operations. It was difficult to add anything to the paper, as the six cases which came under his observation corroborated all that had been presented; but he would suggest *two* more symptoms in the diagnosis of cancer of the ovary.

1st. Infiltration or hardening of the recto-vaginal septum, which had been met with in three instances—and in all of these cases he was convinced at the time of the nature of the disease.

2d. Infiltration of the glands of the abdomen, and especially of the omentum.

When infiltration of the vesico-vaginal septum existed, there were extensive adhesions of the lower part of the cyst to the pelvic cavity, and these could generally be made out. All of these symptoms mentioned had reference to malignant cancer of the ovary.

Dr. Noeggerath referred to three cases of ordinary cyst of the ovary which did not come under the head of malignant cancer of the ovary, and spoke at length on the second case recorded by Dr. Thomas, which he considered a doubtful one. He also alluded to the glandular and papillary varieties of ovarian cysts; and said that occasionally benign ovarian cysts and cancer of the ovary are developed in the same tissue, and in these cases a diagnosis could hardly be made out.

Dr. S. Fleet Speir, of Brooklyn, having received a negative answer from Dr. Thomas, whether there were any microscopical examinations, after a trocaral exploration made in his cases, thought that the microscope would come into play here, and cited the case of Dr. Sands as one in point.

Dr. Chas. A. Hart related a fatal case which was under the observation of Dr. Robert Nelson of this city. A tumor of rapid growth, resembling liver-structure, weighing eleven pounds, was removed from an emaciated cachectic woman. There was no dropsy, but much pain. The pedicle was three inches in length. He inquired of Dr. Thomas if he believed it was malignant.

Dr. Thomas, from the description, replied that he did not think it was malignant, but it might have been an ovarian tumor. The microscope only could settle the question.

Dr. Wm. M. Chamberlain said that he would like to inquire of Dr. Noeggerath if there was much hemorrhage in those cases resembling sausage-meat.

His reply was that there was not much in his three cases.

Dr. Wm. C. Roberts, Vice-President, spoke of the subject as certainly one of the deepest importance in a diagnostic point of view—especially in cases of ovarian tumors. Before calling upon the worthy President of the Academy for his views, he added, that if medical men could diagnosticate between these diseases of the ovary, censure, many times, would be done away with.

Dr. Peaslee stated that no attempt had been made to point out accurately the symptoms of cancer of the ovary before this one by Dr. Thomas. Cancer of the ovary is very uncommon. Keith, after operating 103 times, saw only three cases. Spencer Wells in his first 114 cases of ovariotomy detected only three cases; in his next 100 cases none were discovered. In regard to two of these cases, it was not believed that there was cancer at the time of the operation. The third case he thought could not be put down as cancer.

In a case under his care several years ago, where he removed both ovaries, one was as large as a mug, and the other larger. The form recognized as encephaloid cancer, and involving both ovaries, may not be recognized as cancer at all. He has seen only four cases of real cancer of the ovary.

The symptoms he would attach the most importance to are—a large amount of fluid, a certain failure of health, and a deposit in the vesico-vaginal septum.

In concluding his remarks, he believed that Dr. Thomas could give more observations on the subject, and still further narrow down the disease.

Dr. Hart alluded to the value of Dr. Speir's artery-constrictor in two recent cases. In one case of leg amputation the instrument was successfully applied to the two tibial arteries, at the junction of the middle and lower thirds of the leg, without the loss of one drop of blood. Portions of the tibial and peroneal arteries were exhibited, in a complete state of calcification.

In the case of a male infant, of thirteen months, with a pulsating nævus at the angle of the jaw, the constrictor was applied to the external carotid artery at the middle of the neck. The wound partly united by primary intention. Since the operation the nævus has decreased in size one-half.

The President announced that Dr. Speir would read a paper on "Morbid Growths, Diagnosis, Treatment," etc., April 6th.

On motion, the Academy then adjourned.

Stated Meeting, April 20, 1871.

Dr. E. R. Peaslee, in the Chair.

PRIMARY RESECTION OF SHAFT OF HUMERUS.

Dr. Benjamin Howard presented a case of perfect primary resection of the shaft of the right humerus, for gunshot fracture, with a perfect line of continuity, showing that the operation may be done, although Dr. Holmes, in his work on Surgery, states that there has not been a successful case of this kind. The patient, aged about 35 years, a lumberman and sailor, was wounded at the battle of the Wilderness. To secure apposition and rest, Dr. H. removed an inch and a half of bone, and, with the assistance of a drill made by Tiemann, attached to a bow, the ends of the bone were properly secured by annealed iron wire; but little of the periosteum was saved. The arm was then placed in a bark splint and suspended to the top of an ambulance. The patient was treated for three months at Washington, and discharged with a useful arm. A shortening of the arm of about an inch and a half is perceptible. The speaker stated that he knew of two other successful operations of this character, but he regretted to say that it is not generally applicable for private practice.

THE ACADEMY WAKING UP TO ITS INTERESTS.

Dr. Gouverneur M. Smith announced that the Council had decided to recommend to the Academy for their action the following changes with reference to the publication of papers, etc.: That members may have the privilege of publishing their papers in medical journals, without being precluded from the publications of the Society; that the title of "Bulletin" be abolished, and the word "Proceedings" substituted therefor; and that selected papers may be printed in the "Transactions."

The discussion of the paper delivered April 6th by Dr. S. Fleet Speir, on "The Use of the Microscope in the Differential Diagnosis of Morbid Growths, etc.," was called up by the President, but, on motion of Dr. Krackowizer, the discussion was postponed until May 4th.

HYDRATE OF CHLORAL AND ITS USES.

Dr. J. G. Adams alluded to the importance of the new remedy, hydrate of chloral, and suggested that the members give their experience in regard to its use.

Dr. S. T. Hubbard said that he had used it in three cases successfully. In a case of hysteria fifteen grains were given at first, and increased to thirty grains. Chloral was given every two hours, in the first case, until sleep ensued, which lasted eight hours.

Dr. Joel Foster gave as much as ninety grains to a patient with delirium tremens; the first dose was twenty grains, and the second thirty grains. The

remedy did not produce sleep the first night, but tranquillity followed. During the afternoon of the next day he slept, and awoke refreshed. Dr. Foster inquired if ninety grains was too much to give a patient. In his case quinine and porter had to be administered to revive him.

In answer to this question, Dr. J. Foster Jenkins stated that he was in the habit of giving small doses. Seven and a half grains were given to a female, an habitual opium-eater, which gave her sleep for twelve hours. Five grains afterwards gave her a quiet sleep, with no intermittence of pulse. It is claimed by some that it poisons when administered in syrup, but not when given in water; but this has not been his experience.

In answer to Dr. Farnham, whether the chloral was prepared in America or abroad, Dr. Jenkins replied that his was manufactured in Berlin.

Dr. Chas. A. Hart reported a fatal case of neuralgia, where one dose of twenty grains produced death in thirty minutes.

The President informed the members of the Academy that he had administered it, without any evil result, as often as once a day during the last year and a half. His dose at first is generally from 10 to 15 grains. In the case of a lady, a habitual opium eater, chloral was substituted for the opium, and at the present time she takes thirty grains at night, which causes sleep. The opium has been reduced down to one-fourth of the original quantity.

Dr. Van Kleek referred to a case where as much as seventy grains had been given in one day without effect. He did not believe that chloral was necessarily dangerous, even if chloroform is liberated by its decomposition in the blood, as had been contended by Liebreich and others; for he occasionally gave from ten to twenty drops of chloroform internally, with good results.

Dr. Alfred C. Post said he was called to a case of attempted suicide, where as much as a teaspoonful of chloroform had been taken internally. When he arrived the patient was livid, and in a state of coma, but he afterwards rallied.

Dr. J. G. Adams mentioned the case of a man with hay-asthma, which was cured by one dose of hydrate of chloral.

Dr. W. C. Roberts inquired if he could vouch for the accuracy of the case, and receiving an affirmative reply, said that he should be tempted to try it, as he was a sufferer from this obstinate affection.

Dr. Caro stated that, after Dr. Jacobi's return from Europe some time ago, he gave from seventeen to twenty grains to a man with strangulated hernia, after using unsuccessfully chloroform and tobacco, and the effect was magic-like—the hernia being easily reduced. As the patient was in a low condition, milk and beef tea were injected. He has also used it in from fifteen to twenty grain doses, with happy results, in cases of rigidity of the os uteri.

Dr. J. H. Pooley, Jr., of Yonkers, in answer to Dr. Van Kleek, whether any attention had been paid to the heart before giving chloral, remarked that he had ordered thirty grains of it every night to a patient with a weak and irritable heart. The patient is not less susceptible now than at first. If attention had been paid at first to the condition of the heart in this case, he said that the chloral would not have been given. What astonishes him is the good effect of small doses. At first he gave as much as sixty grains, and in one case sixty-seven and a half grains were administered. His ordinary dose now is thirty grains given in tolu. Intermittence of the pulse has been noticed, but not to an alarming extent. His attention had been called to itching of the eyelids in some cases, which had not been referred to by any member of the Academy.

Dr. A. N. Bell finds that bromide of potassium is an aid to hydrate of chloral, and alluded to a case of paralysis, where sixty grains of the former, followed by two doses of twenty grains each of the latter, procured the necessary sleep. In delirium tremens his rule is to give chloral in doses of fifteen grains every three hours until three doses have been given, and then stop. Chloral acts much better when combined with bromide of potassium. He has never been unfortunate enough to notice any bad effects, or intermittence of the pulse. In concluding, he remarked that if chloral acts at all it will act quickly, and within twenty minutes from the first dose.

Dr. John C. Peters spoke of a case of enlargement of the heart which had been under his care, in which chloral had acted well. The angina pectoris had been removed by its use.

Dr. Van Kleek reminded the members that Dr. Squibb, who was an excellent authority, had announced that chloral became decomposed when suspended in syrup.

Dr. Post stated that the last time he had occasion to use chloral was in a case where the patient would groan and start in her sleep. Fifteen grains were given, and in two hours twenty grains more were ordered; the paroxysms did not return during the latter part of the night

The President alluded to its usefulness in a case of scarlet fever attended with spasms. The child was kept under its influence for twelve days and nights. The chloral was given in doses of three and a half grains. The remedy acts well in spasmodic cases.

CHOREA FOLLOWING WOUND OF OCCIPUT.

Dr. Post also related the case of a child who was struck by a billet of wood over the occiput, chorea following without necrosis. He regarded this case as an unique one, and was not aware of one on record where chorea followed a traumatic injury without necrosis. Dr. Markoe, he said, had remarked that he never knew a case of this character which was not followed by necrosis.

On motion the Academy adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, May 1st, 1871.

Dr. Abraham Jacobi, President, in the Chair.

ABDOMINAL ABSCESS.

After the reading of the minutes and the reports of the Committee on Intelligence by Dr. Castle, and the Committee on Meteorology by Dr. Goodwillie, Dr. Krackowizer presented to the society a specimen removed from a patient to whom he had referred in a previous meeting as having died of disease of the appendix vermiformis, without a diagnosis having been made. He gave in connection with the specimen the following history:—

A boy, aged between 11 and 12, strong and healthy, went, on the 12th of August last, with his parents to Fort Lee. On his return to the city he appeared to be as well as usual, but was very soon attacked with vomiting and purging. The immediate symptoms were relieved by medicines prescribed by a neighboring physician, and the next day he took a dose of castor-oil. For a week following, his bowels were irregular in

movement and character of discharges, his mother stating that he occasionally passed a glairy, ropy matter. He complained of pain in the abdomen, which, however, disappeared when he had been kept quiet for a time, but returned again with exercise.

On the 29th of August Dr. Krackowizer was called in, and prescribed for the immediate symptoms, and he was thereafter free from the vomiting and purging. It was not long, however, before he had occasion to visit the patient again, and found him in bed, with high fever, and tenderness in the right side of the abdomen, where there was also more dulness on percussion than on the opposite side. He had then had no stool for two days. Chills followed by fever and profuse sweating were of daily occurrence. His diet had not been particularly observed or attended to. The doctor thought he had to deal with a case of catarrhal inflammation of the intestine, and again prescribed castor-oil. On the following day there was some tenderness remaining, but there was no fever. On the next day, however, the fever recurred, and he passed more matter of the character above mentioned. Dr. K. began now to suspect that the boy might have contracted malarial poisoning during the trip to Fort Lee, and accordingly directed to be given him three grains of quinine, four times daily. For a week there was no change in the symptoms, the patient taking, during this period, another dose of castor-oil. The pain in the right side of the abdomen increased somewhat, and dulness on percussion was more distinct. The fever continued so irregularly that the doctor began to doubt the correctness of his diagnosis, and about the end of the week his attention was first directed to the appendix vermiformis. On the 9th of September the patient became so much worse that he suspected the influence of improper diet, but was not able to verify it. Another dose of castor-oil brought away the pulp and seeds of an orange.

September 10th.—No fever, tenderness, or tympanitis, and the doctor was disposed to believe his first diagnosis of catarrhal colitis correct. He had then occasion to be absent from the city for two days, and on the evening of his return found the patient again worse, having become jaundiced, and passing clay-colored stools; an examination of his urine showed the presence of bile. The next day, more clay-colored stools; extension of the pain as far up as the margins of the lower ribs; increase of tenderness on pressure. In consultation with Dr. Ziessner it was concluded that the patient was suffering from inflammation of the mucous and submucous membranes of the colon, which had extended to the peritonæal covering, and showed a disposition to sudden outbreaks and spreading of inflammation in the latter. Accordingly the plan of treatment by opium was pursued.

On the 13th of September a tumor, sharply defined and a little smaller than a hen's egg, was detected in the region of the pylorus. It was hard and tender, and from these and other symptoms the doctor feared that the tumor was due to inflammation caused by some foreign body which, having been swallowed, had forced its way thus far into the duodenum, and was in danger of penetrating into the cavity of the peritonæum. The administration of opium was imperative, as a suspension caused worsening of the symptoms. Moderate fever continued, the patient became progressively emaciated, and finally died, tympanitis and vomiting supervening during the last day.

An examination *post mortem* disclosed no general peritonitis, but there was a considerable amount on the right side toward which the mesentery was drawn, a portion being adherent. An attempt to detach it by pulling laid open a large abscess. Numerous small abscesses were also found in the tissue of the liver, especially along its upper surface and outer edge, dependent upon embolisms; but the blood-vessels were not followed out to the points where this took place. There were extensive adhesions between the mesentery and the transverse colon. The abscess above mentioned was the tumor observed before death, and had formed behind the ascending colon where it is not covered by the peritonæum and high up, just before it becomes transverse.

The caput coli and a portion of the small intestine and colon were removed. The abscess was found to communicate with the cavity of the latter, and shreds of mucous membrane were found hanging to the edges of the opening, proving that the abscess formed externally and ruptured into the intestine, and was not the result of disease originating in the mucous membrane. The vermiform process was only discovered after considerable search, and then only after making a slit through the wall of the caput coli, from whence a small probe was passed into its mouth. The appendix had become displaced from its normal relationship, and lay rather behind the ascending colon and directed upwards. It had become involved in the abscess, and only about one-half of it, so it was thought, was remaining. It was owing to its situation that it could not be detected through the walls of the hypogastrium before death. A portion of the small intestine was adherent to the ascending colon. A pouch-like process from the colon was not, as was first supposed, the caput coli, but was a dilatation of the colon itself.

PLASTER OF PARIS BANDAGES.

Dr. Henry B. Sands then read a paper On the Use of the Plaster-of-Paris Bandage in the Treatment of Simple Fracture, especially Fracture of the Femur, after which specimens of the bandages and apparatus used, and a man to whose arm and shoulder the dressing had been applied for the sake of illustration, were shown to the Society.

Dr. Buck complimented the doctor on the admirable manner and exactness with which the paper had been prepared, and expressed his surprise at the small average amount of shortening, especially in fracture of the femur, which he thought surpassed the results of any other mode of treatment with which he was acquainted, including that to which his name was commonly given. In the report of one hundred and forty-nine cases, which he had made as the results of the latter mode, some of which resulted absolutely without shortening, the average shortening in patients over fifteen years of age was $\frac{5}{8}$ of an inch, and in those under fifteen years $\frac{3}{8}$, but Dr. Sands' results were superior to these.

He had always supposed this method, with the plaster bandage, as better adapted to such fractures as had no great disposition to become displaced, such as the humerus, leg, etc., and it had not been his custom to apply it in recent cases. He had never used it in a case of fractured femur. He thought that the method of first enveloping the limb in cotton batting or flannel had the recommendation that it admitted of a certain yet limited amount of swelling, while maintaining support and rest. He wished to ask the doctor if cases of fracture of the cervix femoris, in which the shortening falls short of one inch, were not likely to be impacted fractures. In such cases it was, in the judgment of experienced surgeons, inexpedient to attempt forcible extension, as it tends to separate the fragments. He had known this to be done in some instances, but in his own practice he had never aimed to do more than exert a moderate degree of force. He had noticed in the doctor's report that one such case had no shortening. There was one danger which he thought attendant upon this mode of

treatment—it was that the patient might be negligent, and attempt to go about without his crutches, and thus run the risk of injuring himself and displacing the fragments. He hoped to be able to try the method soon for himself.

Dr. Sands supposed that Dr. Buck referred to the case of the man of 60 years, in which case, however, the fracture was not impacted.

Dr. Buck considered a fracture of the cervix from a fall on the greater trochanter of necessity an impacted one, the fracture taking place through the axis of the cervix, which would be driven into the cellular structure of the trochanter; the shortening which commonly results being from ½ to 1¼ inches, generally less than 1 inch. Rotation outwards is free, rotation inwards is painful and difficult. Crepitus is not generally detected, nor shortening. He recalled a case in which at first he found neither crepitus nor shortening, but shortening occurred subsequently.

Dr. Sands by no means advocated reduction of an impacted fracture, but recognized two varieties of extra-capsular fracture of the cervix femoris, and thought the impacted to be the least common. The signs of the unimpacted variety are well marked by shortening, eversion, crepitus, and helplessness. In the impacted variety the patient can use the limb to a certain extent; in the unimpacted, he cannot do so, also in the latter the degree of shortening is greater than in any other form of fracture of the femur.

Dr. Post confessed himself surprised at the results stated by Dr. Sands, and would not have been disposed to place confidence in their correctness, had they been reported by a less accurate and trustworthy observer. An introduction of this method into general practice, with equally good results, would constitute an era in the treatment of fractures. He considered this method of applying the plaster bandage a great improvement on the one heretofore used.

Dr. Sands, he thought, was correct in his views respecting impacted and unimpacted fractures of the cervix femoris. The opinion of Robert Smith, of England, was, that theoretically they are all impacted at the outset, but in a large proportion of cases the surplus of force splits the trochanter and liberates the fragments.

Dr. Krackowizer had no experience with this method in fracture of the femur, having had good success with Buck's method, but was desirous of making a trial of it, and would do so on the first occasion that offered.

BLEPHAROPLASTY.

Dr. Knapp then presented three patients upon whom he had performed very successful operations of blepharoplasty. In the first case, the disease commenced sixteen years ago, and at the time of the operation consisted in a flat, circular, rodent ulcer at the inner corner of the right eye, the eyelids being pretty well preserved. Two flaps were formed from the forehead and cheek and stretched towards each other, being made to unite at about the site of the inner canthus. Care was taken to attach the inner end of the lower lid to the middle of the flaps, and to stitch the latter to the periosteum. The lids can now be opened and closed without difficulty, and there is no lachrymation. Formerly he could use but one eye at his work, whereas he can now use both; and considering the value of binocular vision in aiding him to measure distances, this is of great importance to him.

Case No. 2 was one of epithelioma of the lower lid involving the cheek. Great care was taken to remove everything which might be diseased, including the cleaning of the wall of the orbit and the removal of the membranous portion of the lachrymal sac. The flap was taken from the forehead, was fifteen lines broad, and was united to its new site by a large number of stitches and suture-pins. Union took place by first intention. The eye lachrymates, of course, owing to the removal of the lachrymal sac, and the flap has contracted considerably. To relieve the lachrymation, the lachrymal gland might be extirpated, an operation unattended with danger, but which will probably be unnecessary in the present instance. The eye is perfect, and he can close the lids during sleep. There is but little mucous membrane on the lower lid.

The 3d case was the most extensive successful case of blepharoplasty Dr. Knapp had known recorded. It had been a case of epithelioma of both lids, which, with the inner canthus, were gone, and the disease was extending to the nose.

Three flaps were used, the first from the forehead was twisted, the second from the cheek was slid into position, and the third was taken from the nose.

If necessary to secure adhesion of the flaps, the doctor said he would close the eye entirely, depending on a subsequent operation for the formation of a palpebral fissure. The patient can see pretty well with this eye, and there is mucous membrane on both lids.

Correspondence.

THE DRUG CLERK LAW.

To the Editor of the Medical Record.

Sir:—In your able editorial on the "Drug Clerk Law," in your issue of the 1st inst., every word of which I heartily endorse, it seems to me that you have overlooked two very serious defects in it.

1st. That its operation is confined to the *city* of New York, leaving all other cities, towns, and villages in the State unprotected.

2d. That *owners* or *proprietors* of stores are not amenable to the law; only clerks!

If strictly enforced it will in time drive all the incompetent clerks out of New York city into other parts of the State, or other States; and the question presents itself, "Why should the city of New York be favored thus at the expense of the whole State?" As regards the second defect, it is a fact well known to most physicians, that many persons more or less ignorant of chemistry and pharmacy are engaged in the drug business as owners of stores who rely almost entirely on the knowledge and ability of their clerks, but do not hesitate, in their absence, to sell drugs, dispense medicines, and compound prescriptions. And the question is why should *they* be exempted from the operation of this law?

I have the honor to be, very respectfully,
Your obedient servant,
Henry Saunders,
Act. Ass't Surg. U. S. A.

Laurensville, S. C., May 12th, 1871.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department of the United States Army, from May 5th, 1871, to May 18th, 1871, inclusive.

McLaren, A. N., Surgeon.—By S. O. 103, Headquarters Department of the East, May 17th, 1871, granted leave of absence for thirty days.

Byrne, C. C., Surgeon.—By S. O. 99, Headquarters Department of the East, May 12th, 1871, granted leave of absence for thirty days.

Woodhull, Alfred A., Assistant Surgeon.—By S. O. 83, Headquarters Department of the Missouri, May 8th, 1871, granted leave of absence for thirty days, with permission to apply at Headquarters Military Division of the Missouri, for an extension of thirty days.

Gibson, J. R., Assistant Surgeon.—By S. O. 190, War Department, A. G. O., May 13th, 1871, relieved from duty in the Department of the Missouri (District of New Mexico), and to report in person to the Surgeon-General for assignment to duty.

Middleton, P., Assistant Surgeon.—By S. O. 97, Headquarters Department of the South, May 10th, 1871, granted leave of absence for thirty days, on condition that he provide proper medical attendance for the command during his absence.

Carvallo, Carlos, Assistant Surgeon.—By S. O. 89, Headquarters Department of Texas, May 6th, 1871, to accompany troops from Jefferson, Texas, to Fort Richardson, Texas, and, on his arrival there, to proceed to Fort Griffin, Texas, and report for duty as Post Surgeon.

Loring, L. Y., Assistant Surgeon.—By S. O. 85, Headquarters Department of the Missouri, May 10th, 1871, assigned to duty in the field with 6th United States Cavalry, near Fort Hayes, Kansas.

Dickson, J. M., Assistant Surgeon.—By S. O. 79, Headquarters Department of the Platte, May 11th, 1871, relieved at Fort Sedgwick, Colorado Territory, and assigned to temporary duty at Omaha Barracks, Nebraska.

Medical Items and News.

Iowa State Medical Society.—The nineteenth annual meeting of the Iowa State Medical Society was held in Des Moines, April 19th or 20th, 1871. The attendance was unusually large, representatives being present from nearly all parts of the State. The session was harmonious, and the best of feeling prevailed. Many papers of general interest were read and referred to the Committee on Publication. Some interesting verbal reports of special cases were also made. Dr. S. B. Thrall, of Ottumwa, was president *pro tem.*, and Dr. G. P. Hanawalt, of Des Moines, secretary.

The following persons were elected officers for the ensuing year:—President, Dr. A. G. Field, Des Moines; Vice-President, Dr. J. M. Robertson, Muscatine; Secretary, Dr. Geo. P. Hanawalt; Corresponding Secretaries, Dr. J. F. Ely, Cedar Rapids, and Dr. G. W. Gustine, Panora. The next meeting of the Society will be held at Des Moines, the first Wednesday of May, 1872.

The Epidemic of Small-Pox Abroad.—Dr. Edward Seaton, Senior Medical Inspector to the Privy Council, London (*British Med. Journal*), has compiled a table showing the frightful prevalence and fatality of small-pox in the towns of Rotterdam, The Hague, Utrecht, and Amsterdam, from January 7, 1871, to April 1, 1871—a mortality which, in proportion to population, reduces to insignificance the mortality in London or in Liverpool. In the *first* town, with a population of 121,027, there were 985 deaths; in the *second*, with a population of 92,021, there were 952 deaths; in the *third*, with a population of 60,428, there were 529 deaths; and in the *fourth*, with a population of 274,931, there were 332 deaths. The mortality from small-pox in London (population considerably above 3,200,000) for the same period was 2,710.

Dr. Ballot, of Rotterdam, writes that the mortality has been chiefly among the poorer children, who have been left unvaccinated through a sort of puritanism and nonchalance. In The Hague and in Utrecht the epidemic has apparently culminated; but there is no evidence of this being the case as yet in Rotterdam, while in Amsterdam it is evidently advancing.

Bellevue Hospital Medical College.—At a meeting of the Faculty of this Institution, Dr. W. T. Lusk was elected Professor of Obstetrics and Diseases of Women and Infancy. Dr. E. L. Keyes was also made Lecturer on Dermatology.

Medical Library and Journal Association.—At the meeting of May 12th, Dr. T. R. Pooley reported several interesting cases of gunshot injury to the eye, presenting also one of the patients. In cases like these everything depends upon the minute details, so that no abstract would do them justice, or even serve to render fully intelligible the valuable remarks upon them by Dr. Knapp.

At the meeting of May 19th, Dr. Peaslee read a carefully prepared paper upon the early history of ovariotomy, its main object being to vindicate the claims of Dr. Ephraim McDowell, of Danville, Ky., who first performed the operation in December, 1809. The speaker fairly considered, and completely disposed of, the claims to priority set up for other surgeons, and the attempts to rob Dr. McDowell even of the credit of his own operations. He recognized, however, that Dr. Nathan Smith, of Conn., had independently originated the operation in July, 1821, being ignorant of its previous performance. In conclusion, Dr. Peaslee gave a short biographical sketch of Dr. McDowell, and paid him the tribute of warm admiration for his character as a surgeon and as a man. "To inaugurate the operation of ovariotomy was worthy of any man, and the man was worthy of the operation."

New York Ophthalmic and Aural Institute.—The Board of Trustees of the New York Ophthalmic and Aural Institute, No. 46 East Twelfth Street, held its second annual session May 15th, and listened to the reports of the officers as follows:

The Dispensary has been conducted purely as a charity. The number treated was 3,115, of whom 2,466 had diseases of the eye, and 646 diseases of the ear, showing an increase over the first year of 70 per cent. In the In-door Department, which is not exclusively a charity, 256 patients were treated for severe diseases, the majority of which required surgical operations. The total number of operations was unexpectedly large, being 422 for diseases of the eye, and 34 for diseases of the ear—an increase over the preceding year of 100 per cent. Medical lectures have been given by the surgeon in charge, free to physicians and the students of all the medical colleges. The financial report shows a deficit of $5,000, which had been liquidated by Dr. Knapp from his private resources. The average attendance was 125, the number of new patients on some days reaching 30.

The report was adopted, with a vote of thanks to Dr. Knapp, surgeon in charge. Nelson J. Waterbury stated that he had secured from the State an appropriation of $2,000, and from the city a similar sum, making $4,000 in all—double the bequests of last year. The officers of the Institute were re-elected for the coming year as follows: Frederick S. Winston, President; Dr. Gurdon Buck, Vice-President; Eugene S. Ballin, Treasurer, Philip Bissinger, Secretary.

Original Communications.

THREE UNUSUAL CASES OF STRANGULATED HERNIA.

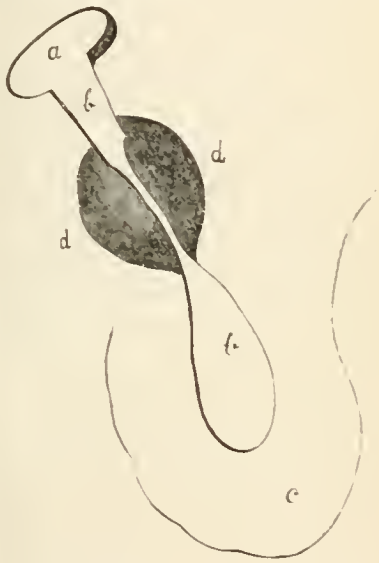
TOGETHER WITH A CASE OF SPONTANEOUS FORMATION OF AN ARTIFICIAL ANUS IN A VENTRAL RUPTURE.

By ERSKINE MASON, M.D.,

SURGEON TO THE CHARITY AND ROOSEVELT HOSPITALS.

CASE I.—STRANGULATED OBLIQUE INGUINAL HERNIA (SCROTAL), CAUSED BY GREAT THICKENING OF THE SAC IN A RECENTLY ACQUIRED HERNIA—OPERATION.

WHILE making my visit at Charity Hospital to-day (Oct. 24, 1870), I was requested to see John M., æt. 80, who had just been sent down from the almshouse, suffering from strangulated inguinal hernia. The rupture first made its appearance the beginning of last July, while doing some heavy lifting. He then applied to the house physician, who sent him to the Institution for the Relief of the Ruptured and Crippled, where a truss was provided for him, and he returned to the island. He wore his truss constantly, and no trouble is reported to have followed from that time until the afternoon of Oct. 22, when his hernia "came down" and gave him so much pain that he applied to the house physician, Dr. Kinney, for relief. The doctor reduced it easily at that time, and all pain ceased. On the morning of the 24th it again descended, and all the doctor's efforts at reduction proving futile he was removed to the hospital. At the hospital he was placed under ether, and efforts at reduction were made by the house surgeon, Dr. Hall, and also by Dr. Janeway, but without any success. When I saw the patient (about eight hours after the symptoms of strangulation appeared) he was very much exhausted, with an intermittent pulse, singultus, cold extremities, and bathed in a cold sweat; pressure over the abdomen caused but little pain; he evidently was fast passing into a moribund condition. The appearance of the tumor was as follows: There was considerable fulness of the right inguinal canal, together with fulness of the scrotum, while just outside the external ring and extending over the pubic bone was an oval tumor about two inches in length, and *very hard*. The fulness of the canal and scrotum, which were observed, was evidently due to the presence of intestine. This hard tumor could be pushed up a little way through the ring, but in a moment resumed its position again outside the canal. The exact nature of this tumor I could not satisfactorily make out, but supposed it might be due to thickened omentum, which had become adherent to the sac. Had the patient been a female I should have supposed it due to the presence of the ovary, so much did it resemble it in feeling. I had the patient again placed under ether (a stimulant being first administered), and taken into the theatre, and in the presence of Dr. Budd's medical class, with the assistance of Drs. Budd, Janeway, and Shiff, proceeded to operate, after making myself one more effort at reduction by taxis. I exposed the parts carefully, and found the stricture was evidently not outside the sac, and the sac seemed perfectly free below the tumor. I divided layer after layer of this tumor, which was very vascular, believing now that it was due principally to a thickened sac, though not altogether positive on that matter. I proceeded thus cautiously, not knowing what I might come down upon, until I had passed through this thickened mass *fully half an inch*, when I entered the canal of the sac, which was *extremely* constricted, causing the strangulation of the intestine. The sac now being opened, and the gut being found in favorable condition, it was readily returned, and the wound dressed as usual in these cases. During the night the patient remained in a very prostrated condition, with a pulse of 140 and intermittent, temperature 99°. He was unable to pass his water for the first four days, except by the aid of a catheter, this being due in a great measure to an enlarged prostate. For the first three days he was troubled greatly with vomiting and considerable pain in the abdomen. The scrotum became very much swollen and inflamed, which gave rise to an abscess. These symptoms gradually improved, and on the eighth day I had his bowels moved by an enema of warm water. His convalescence, however, was very slow, he being confined to bed for nearly a month; but by careful attention on the part of the house surgeon he made a good recovery.



a, External ring; *b*, sac; *c*, scrotum; *d*, tumor.

REMARKS.—This thickened condition of the sac, which gave rise to the strangulation, was evidently brought about by inflammation caused by the truss, and which almost resulted in complete closure of the sac at this locality. Had complete closure taken place even at this point, the patient could not have been said to have been radically cured, for above the location of this tumor, *viz.*, between the external and internal rings, the sac was open and of large dimensions. This state of affairs appears to us to go far towards showing that the pressure exerted by the truss should be at the point of emergence of the hernia from the abdominal cavity; thus in oblique inguinal hernia at the internal ring, not between the external ring and the pubic bone, the locality in which we have often known the pad of a truss to rest, when applied by instrument-makers. This thickening of the sac has been noticed, as far as I have been able to discover, only in *old ruptures*, and then chiefly at the neck of the sac, and the peritoneum then often observed to have undergone considerable changes; here, however, this serous membrane, as far as the eye and touch could discover, was perfectly normal, and the thickening was due entirely to adventitious coverings outside the serous sac, the products of comparative recent inflammation, and thus we may ac-

count for the vascularity of the parts. The only case we find mentioned in the literature we have looked over on the subject where so much thickening of the sac has been noticed, is one mentioned by Arnaud, *Mémoires de Chirurgie*, vol. i. p. 53, and referred to by Lawrence in his work on ruptures; in this case the sac was six lines in thickness, but neither the locality nor the age of the rupture is stated.

Case II.—Strangulated Femoral Hernia.—Operation without Opening the Sac.—Artificial Anus.—Recovery.—On the morning of November 16, 1870, I was asked by Dr. J. Lewis Smith to see Mrs. B. with him, who was suffering from a strangulated hernia. This patient was an extremely thin, feeble woman, in her 56th year, though from her appearance she would be regarded as much older. She had always enjoyed good health till the past two years, during which time she had been quite feeble. The hernia she first noticed in her right groin last July, but it disappeared in a few days of its own accord and gave her no trouble. She knows of no cause that produced it. Symptoms of strangulation appeared on the morning of the 14th, about 8 o'clock, just after rising. For the relief of her symptoms she had only resorted to the usual domestic remedies, such as cathartic pills (her bowels having been constipated for a day or two before) and mustard plasters. These not affording her relief Dr. Smith was sent for, and he at once requested me to come prepared to operate. I saw her about 11 o'clock, and found a hard tumor situated in the right crural region, about the size of a large hen's egg, which was painful upon pressure, as was also the lower portion of the abdomen upon that side. She also complained of great pain in the region of the umbilicus, and of "cramps in the bowels." She had no hiccough or tympanitis, but vomited every little while; her skin was warm, pulse 100 and of good quality. She was at once placed under ether, and after a faithful, though fruitless, effort to reduce by taxis, I proceeded at once to operate, assisted by Drs. Smith and H. T. Strong. The operation was performed just 5½ hours after the symptoms of trouble began. After dividing the superficial coverings, the sac was found protruding through the saphenous opening, and adherent on its outer side to a large inguinal gland. This attachment had caused the sac to be twisted upon itself, and drawn downwards and outwards. The appearance of the intestine, as seen through the sac, though congested, appeared to warrant the attempt at reduction without laying open the sac. I therefore nicked Gimbernat's ligament, and divided some bands which passed over the neck of the tumor; this, however, did not admit of reduction. I then freed the sac from its attachment to the gland, when the intestine passed rapidly into the abdomen. The sac was now carefully examined, and finding it thoroughly evacuated of its former contents it was pushed up into the femoral aperture, hoping that thereby adhesion would take place and the femoral ring become closed, and thus, as in some other cases where I have pursued this practice, I should succeed in obtaining a radical cure. No vessel required a ligature save one small one at the upper portion of the wound—indeed, it was as bloodless an operation of this kind as I ever saw. The wound was brought together by several sutures and a compress, and bandage applied. A dose of morphia was then administered, and milk and lime water ordered ad libitum. I saw the patient again at five o'clock that afternoon, and found she had come from under the influence of ether very pleasantly, and all nausea had ceased; her skin felt natural and pulse 100. Complaining still of pain in the bowels, I proceeded to examine the abdomen, thinking the bandage might be too tight and require to be loosened; when, to my surprise, I discovered the compress soaked with blood. Removing the bandage and compress we were greatly astonished to find a hard tumor beneath the integument, extending upwards for an inch or so above Poupart's ligament, and outwards to the anterior superior spine of the ilium; this was evidently due to the presence of a blood-clot. A little blood was also trickling from the lower angle of the wound. So great was the tension of the parts, that the two lower sutures were nearly torn out. These sutures I removed, when there followed a large spurt of blood; passing my finger into the wound and holding it there a few moments all bleeding ceased. I then introduced two more sutures and had ice applied to the parts, preferring, as there was now no hemorrhage, to wait a little, and then, should bleeding recur, to open the wound and search for the open vessel, believing that as there was now no immediate necessity for further action, it would be better than to disturb the clot at present. Upon closely questioning the patient, we discovered that shortly after the operation, feeling so much better, she had risen from her bed to pass water, and sat down in her chair while her bed was made. This act of imprudence on the part of the patient had perhaps removed the ligature from the vessel we had tied, or else started bleeding from some other source. We saw the patient two hours after this last visit, but there was no return of bleeding. A third of a grain of morphia was given, and ice-water kept over the wound. The following morning her condition was very good, though she had vomited several times during the night. Her pulse was now 88. Skin comfortable, and she had had a movement from the bowels. On the second day after the operation, her bowels had been moved again, this time very freely; nausea and vomiting still continued. Mustard to the epigastrium and carbonic acid water as a drink relieved her but little. In the evening she was relieved by bismuth sub. carb. grs. x., and morphia one-twelfth of a grain. While straining at stool she had some little bleeding from the wound, which ceased of itself without any trouble. The parts about the wound, indeed the whole groin, were greatly ecchymosed. The two lower sutures were removed, and a bladder of ice applied over the parts to prevent a return of the bleeding. November 21.—The vomiting returned, but was checked by a grain of opium every six hours, and she passed a comfortable night. The vomiting appeared to be caused by taking freely of beef-tea. Milk punch did not appear to disturb her stomach, and was therefore substituted for the tea. This day she had two free movements from the bowels. The wound discharges somewhat, principally bloody serum. Nov. 24.—Since the last note, the vomiting has been more or less troublesome in spite of all the usual remedies employed. To-day she complained of great prostration, and her pulse had risen to 128. Her bowels not having moved for two days, a warm water enema was given, which acted well. Her stomach was so irritable that all nourishment and medication by the mouth was discontinued, and enemas of beef-tea with a tablespoonful of whiskey were given every two hours, together with ten grains of quinia, night and morning, administered in the same manner. The following morning her pulse was down to 100, and her condition somewhat better. The tongue, which had been quite furred and dry for the past few days, was now moist. Wound discharging freely, and portions of blood-clots coming away. November 27.—The vomiting had ceased. Milk and lime-water were now given by the mouth cautiously, and retained. The injections were stopped, and stimulants and beef-tea together with quinia were again

given by the mouth without causing any nausea. The patient found she could take Liebig's extract of beef in small pieces, and seemed to relish it. It was therefore given to her in this way, in considerable quantities. The bowels now move more naturally, and the wound is poulticed with flax-seed made up with sol. Labarraque. Considerable ecchymosis still exists, especially on the outer portion of the thigh. The urine being examined, a slight trace of albumen was discovered, but no casts. On the evening of the 28th, Dr. Smith found her pulse 140, and was told by her daughter that she thought while dressing the wound that night, air had escaped from it. While examining the wound the following morning, fecal matter was found flowing from it freely. This was the *thirteenth day after the operation*. Her pulse had diminished in frequency since last evening, and her general condition was much better. The wound was ordered to be kept perfectly clean, and owing to the offensive discharge, bals. of Peru was used as a dressing. This order was faithfully carried out, and on December 6 the condition of our patient was very good, her appetite had improved, and she really appeared to relish her food. The bowels moved almost entirely through this artificial opening, and so frequently, that it was almost impossible to keep her at all comfortable. Never except when an enema was administered did fecal matter pass per anum, and then only in small quantities. An enema was ordered to be given daily so as to solicit the discharge from the bowels as much as possible through their natural channel. The artificial anus is an inch below Poupart's ligament, and half an inch in width by actual measurement. Shortly after this two small bed-sores appeared over the region of the sacrum, which added greatly to her discomfort, and complicated the management of her case in no small degree.

My next note of the case is on January 11th. The condition of the patient has been slowly but steadily improving; the artificial opening had been closed by compresses of oakum during the interval between the movement of the bowels, for several days, but these caused so much pain, and the integument around the wound becoming inflamed and threatening erysipelatous action, they were abandoned. The edges of the opening have been touched from time to time with the stick of nitrate of silver, which is causing a contraction of the orifice; the injections of warm water have been kept up daily until to-day, when for the first time since the appearance of the artificial anus, she had a natural movement from the bowels. The bed-sores are healing nicely, and to-day she is able to sit up on her chair. From this time the opening began to close rapidly. On the 3d of February I called on her, and found she was feeling quite well and able to move about a little. No fecal discharge had taken place from what was now but a small opening just sufficient to admit a probe, for some time. She informed me that since I last saw her she had a small abscess form in the groin, which discharged through this small opening; but for a few days, not more than a drop or two of a "yellowish fluid thin as water" has been noticed. During all this period she had no pain over the abdomen after the first twenty-four hours subsequent to the operation.

March 6th. Calling on Mrs. B. to-day, I found her up and moving about as well as ever. She says she feels perfectly well; that there remains still a small opening about the size of a pin, but it gives her no inconvenience. Sometimes she will have a feeling of pain and numbness in the thigh, when there will be a slight yellowish discharge thin as water from the opening, and all unpleasant feelings about the limb cease. Her bowels move regularly every day; and the hernia has shown no tendency to return.

It is not at all an unusual event to have an artificial anus form when the gut is almost gangrenous and left at the mouth of the sac. Indeed, a case has been reported by Mr. Cooper where this event did not occur until the ninth day after the operation, the patient during all this period having natural evacuations. For this result to happen as in this case, where the whole contents of the sac were returned at once as soon as all obstructions were removed, and the patient's bowels moved freely until the fourteenth day, when this accident took place, must be extremely rare, to say the least. That the contents of the sac were fully returned into the cavity of the abdomen we feel quite positive, as the sac was carefully examined in regard to this point. The intestine, if it again fairly entered the sac, must have done so during one of the paroxysms of vomiting, which the patient experienced during the first four days subsequent to the operation. Nor even at this late time could this portion of intestine, if constricted, have been very great. For we had a patent intestinal canal, otherwise the bowels would not have acted so freely, and again no pain in the abdomen was complained of shortly after the operation for the relief of the constriction. My own view of the case is that a portion of the constricted gut became adherent to the abdominal wall close to, or at the femoral aperture, and the resulting inflammation which ensued and was due to the presence of the enormous clot, the result of the secondary hemorrhage, caused the intestine to give way at this weak point; for the ulceration and suppuration of the tissues beneath the tegumentary coverings were considerable. As to the operation which was done, we have to congratulate ourselves that the sac was not opened; for, had the old mode of operating been pursued, and the sac been freely opened, we certainly should have failed in saving our patient; for the copious secondary hemorrhage, which was due, we firmly believe, to the great imprudence on the part of the patient, would have passed into the cavity of the peritonæum, thereby giving rise, especially in one whose condition was so feeble, to fatal peritonitis. The result of this case only gives additional proof of one of the advantages claimed by the advocates of this operation, and proves, as do other cases which have been reported, that should the coats of the intestine give way from the separation of a slough, the not opening of the sac by operation is no barrier to the successful formation of an artificial anus.

Case III.—Strangulated Ventral Hernia, together with a Strangulation of the Intestine within the Abdomen.—Operation.—Death.—On the morning of January 5, 1871, I was requested by Dr. Alexander Hadden to see a patient with Dr. Cremin and himself, who was suffering from strangulated ventral hernia. I found the patient—a Frenchwoman, aged 62 years, mother of several children, who had been the subject of the above variety of hernia for the past nineteen years—the hernia making its appearance after the birth of her last child. As a rule, she had always been in the enjoyment of good health, her only ailment being constipation, for the relief of which she had long been in the habit of using Seidlitz powders. For the relief of her rupture she has pretty constantly, for the last year at least, worn a truss. Twice she has had great trouble in effecting its reduction, and the last time, about a year ago, after a great deal of trouble, Dr. Cremin succeeded in reducing it; after which she had an attack of peritonitis. The patient was a very large corpulent woman, with an immense pendulous abdomen, so that when lying down the upper portion of her thighs was covered by it. The abdomen was tympanitic, and over every portion

great pain was complained of when touched, more particularly in the neighborhood of the rupture. The pulse was rapid and intermittent, though respiration was not accelerated, nor seemingly interfered with, nor did her countenance assume the anxious expression so common in these cases. Projecting from the median line, a little above the umbilicus (all traces of which, by the by, were effaced by the swelling), was a tumor considerably larger than my fist. The integument covering it was extremely thin, of a vermilion color, with the exception of the base, which at portions was of a leaden hue, and over a portion of the surface were a few blebs, some of which had opened and were discharging serum. Just above this tumor was a somewhat crescentic swelling, which, from its appearance, I thought might be due to a distended transverse colon. The hernia had protruded during the previous night while in bed, and at eleven o'clock that night she was seized with pain, hiccough, and vomiting; failing to reduce the mass herself, Dr. Cremin was sent for early in the morning. After considerable manipulation the doctor reduced the external tumor, but upon removing his hand it soon afterwards reappeared, and he was unable to restore it as before. Her bowels had moved just previous to his visit.

I saw the patient about half-past nine the same morning, and certainly never encountered a more desperate case, and one for which our remedial art held out such small chances for averting a fatal issue. Placing the patient fully under the influence of ether, I resorted once more to a gentle effort at taxis, but without any result. I considered, therefore, that her only chance, slight as this was, was in the division of the stricture, rather than covering the tumor with a poultice, and leaving it to slough; in the hope that, as in a case reported in Mr. Cooper's work on hernia, an artificial anus would form, without the patient succumbing to such an enormous tax upon her already prostrated condition. Taking this view of the case I proceeded with the operation. A small incision was made through the integument in the median line, at the lower portion of the tumor. No sooner had this been done, when, so great was the pressure from within that the wound gaped open, the sac ruptured, and a coil or two of intestine, black as a coal, emerged from the opening; fluid of a dark color, considerable in quantity, and of offensive odor, also escaped from the abdomen. Introducing my finger into the wound, and passing the knife along it as a guide, I divided the hard, almost cartilaginous ring which surrounded the mass. I imagined now the impediment to reduction would be removed, when to my surprise, upon withdrawing the fingers, the small intestines began rapidly to protrude from above downwards. Holding one hand over the wound to prevent farther protrusion if possible, I endeavored with the other to return that which had escaped, but failed to accomplish this. Thinking perhaps this failure might be due to the great distension of the gut by flatus, I pricked the intestine with a fine needle, but with no further result than the giving exit to offensive gas. In spite of all precautions the intestine continued to protrude until several feet remained outside the abdomen. Again introducing my finger into the wound, and passing it downwards into the abdominal cavity and sweeping it around, I could detect no cause to prevent the reduction. The intestine had now receded from the ventral protrusion, and this tumor had subsided. I again introduced the finger, and this time was enabled to pass it upwards, when the finger entered a cavity which appeared to be between the peritoneum and abdominal walls, and constituted the crescentic swelling before spoken of as being just above the ventral protrusion. This cavity was filled with intestines, and here I detected two thick transverse bands, which evidently were producing an internal constriction. These bands were also felt by Drs. Hadden and Cremin, after which, introducing two fingers, and passing the hernia knife between them, thus protecting the viscera from injury, I divided both bands, when all obstacle to the return of the intestine vanished. It was from this cavity that the intestine emerged, and we evidently in this case had to deal with an internal stricture as well as the hard ring through which the ventral hernia protruded. After division of these bands some hemorrhage made its appearance at the wound, but soon ceased. The intestine which was outside the wound recovered its color in a great measure, though to the feel it was quite cold, this being due, I presume, to the quantity of ice which had been applied over the tumor in the hope that thereby reduction by taxis would be facilitated. Another feature in the case was also a matter of surprise to me—that, in spite of the great quantity of intestine which escaped, there was no collapse of the abdominal walls.

The wound being brought together by several sutures, broad strips of adhesive plaster were used to support the abdominal walls, and a large dose of morphia administered as soon as she came somewhat from under the effects of the ether. To my surprise, soon after the operation her pulse was good and without any intermission. She began to fail, however, an hour afterwards, and died four hours after the operation.

No post-mortem could be obtained. The exact nature of the condition of affairs in this case I am at a loss to comprehend. The internal bands which were divided were the result, I presume, of the attack of peritonitis which ensued upon the reduction of her hernia a year ago, and now apparently at this late day hastened, if they were not the chief cause of her death. As to the cavity between the abdominal walls, which contained so much of the small intestines, we are entirely at a loss to account for it; nor have we met with a case which resembles this one, in any of the works upon this subject to which we have referred.

Case IV.—Ventral Hernia.—Spontaneous Formation of an Artificial Anus.—The following case is one of considerable interest, and occurs so rarely, that I record it with the above cases. On Feb. 6, 1871, through the kindness of my friend, Dr. W. B. Eager, Jr., I saw Mrs. T., æt. 76, who has been the subject of ventral hernia since 1832. This rupture was caused by the exertion she made while shaking a carpet. Since this occurrence she has borne two children, and neither during her gestation nor confinement did this tumor cause her much trouble. For some time she wore a truss, but as "it never kept back the tumor entirely" she laid it aside. The rupture is a little to the left of the median line, and about an inch below the umbilicus; it measures nine inches from above downwards, and eight inches from side to side. The lower surface of this tumor (which is pendulous), from rubbing against the abdomen, became excoriated over a space about three inches square. This condition of affairs had existed for a long time, when it took on decided ulceration, and on the first of last June the ulceration opened into the intestine. At the present time there are two distinct openings, one of which is situated on a small projection about half an inch long and one inch wide, and resembles somewhat a prolapsed rectum. The evacuations take place almost entirely through these artificial openings; she seldom, and then only after a cathartic, having a movement per anum. She is well nourished and quite active; indeed, one would never suspect her of having arrived at her time of life, from her appearance. Besides this great infirmity,

she suffers from complete blindness. She is extremely careful of her person, and is enabled to make herself tolerably comfortable by wearing an india-rubber bag over the tumor.

From the character of the discharges, and the fact that fluids are inclined to pass soon after they are taken, it appears that the communications are with the small intestine, and not the large. Since the occurrence of these artificial openings she has lost both in flesh and strength.

113 West 41th St.

STRYCHNINE AS A CURE FOR AMAUROSIS.

By Prof. A. NAGEL,

of tubingen.

(Translated by Richard H. Derby, M.D., of New York, Ophthalmic Surgeon to the Demilt and New York Dispensaries.)

Nux vomica and strychnine have been used by various surgeons in the treatment of amaurosis. Especially in the hands of English surgeons (Shortt, Middelmore, Henderson, etc.) since 1830, who used these agents by the endermic method, were good results obtained in cases of the so-called torpid and paralytic amaurosis. Verlegh reported a remarkable case of cure effected by the inoculation of strychnine. In Germany, too, during the last thirty or forty years, there have been reports of the cure of amaurosis by means of strychnine. Still the authorities of the profession have spoken unfavorably of the new remedy, which, through numerous failures, seems to have lost its reputation and been forgotten. Since the introduction of hypodermic injections, several encouraging results have been published, one by Frémineau and Saemann, and two by Talko. Notwithstanding this, strychnine has to-day a very questionable reputation as a cure for amaurosis, and the isolated cases of recovery seem to be regarded rather as unexplained literary curiosities.

In the course of the last few years I have acquired a much more favorable impression; a methodical, although to be sure not entirely exhaustive, series of experiments has furnished me with repeated proofs *that strychnine is a most useful, nay, an invaluable, remedy in the treatment of amaurosis;* that, when it is judiciously and properly applied, it leads to very satisfactory, and sometimes to wonderful, results. Its effect upon the deranged sight is so peculiar that a closer study of it may be of advantage in explaining the theory of the general action of strychnine. For this reason, the subject has more than a merely ophthalmological interest.

The following brief *résumé* of a few cases I have selected from a large number of successful applications of strychnine.

A boy, eight years of age, after an attack of measles, awoke from a long, profound sopor, blind in both eyes. There was almost no perception of light or pupillary reaction; ophthalmoscopically nothing to be seen. There was no trace of neuritis optici. The blindness lasted several weeks, then slowly a little vision returned. *Speedy complete cure by strychniue.* The action of each injection, consisting in a marked improvement of the acuteness of vision (several numbers of the test-types), appeared *at the end of half an hour.* Only four injections were necessary to complete the cure, and only one-ninth of a grain of strychniæ nitr. was used in all.

In another case of incomplete monocular amaurosis with pronounced concentric limitation of the visual field, where the optic disk appeared normal, occurring in a boy, fifteen years of age, who from birth had been partially color-blind, two subcutaneous injections of strychnine produced a complete and lasting cure in the course of a few hours. The very first injection raised the acuteness of vision at once to almost its normal condition; and the contracted visual field became enlarged by the gradual recovery of small concentric zones. Scarcely one-fourteenth of a grain of the preparation was used in all. In this case, too, the effect followed *a few minutes after the injection*, and reached its maximum in less than an hour.

In cases of less pronounced amblyopia, of the character of retinal paresis, and arising from a variety of causes, strychnine produced a distinct improvement of central, and in some cases of the eccentric, vision—an effect which, when the dose had been rightly applied, usually became apparent in the course of one-fourth or one-half hour after the injection.

In cases of commencing, and even in advanced, atrophy of the optic disk, where the ophthalmoscope revealed discoloration and slight excavation, strychnine proved often of service—a result which has never before been recorded in the literature of the subject. It is natural that, in some of the cases that were formerly regarded as incurable, we should be satisfied with partial success; happy, indeed, if total blindness can be warded off. *The earlier the treatment is commenced the better the result.*

In desperate cases of progressive amaurosis, not only was the advance of the disease stayed, but a marked improvement, in some cases temporary and in others permanent, was secured. In one case of amaurosis, that presented all the characteristics of malignity and speedy advance, the destructive process was suddenly stopped, a portion of the sight was saved, and the disease remained for years stationary. To-day, *more than five years after the treatment with strychnine*, the patient walks about alone, and can read print, notwithstanding a perfectly white papilla.

In certain cases of intensely white discoloration of the papilla I have observed a marked improvement in its appearance, and a partial return of its lost capillary redness.

It is a matter of physiological interest that strychnine was of service in amblyopia of a high degree, caused by years of non-use, and associated with marked functional deterioration of the outer half of the retina. In one case where with one eye the patient could only count fingers at a distance of a few feet, at the end of fourteen days he could read a fine type (Jaeger No. 3).

In cases of traumatic amaurosis the results were repeatedly very striking. I have now in my clinique a case, in many respects very interesting, of this kind, where, in the course of a few days, a useful amount of vision was secured, although the optic nerve appeared anæmic and discolored.

The present war brings us, unfortunately, only too many cases of traumatic amaurosis. Grazing shots, and contusions of every kind, produce sometimes simple and sometimes complicated paralysis of the retina, that is amenable to treatment. Let us not forget what strychnine may accomplish in these cases, where no other remedy offers hope.

In view of my previous experience, I am justified in advising the cautious use and careful examination of the curative action of strychnine in the treatment of amaurosis. A positive prognosis, and all the indications for its use, cannot as yet with certainty be laid down.

Cases of the so-called pure anæsthesia retinæ give the most perfect results. Most of the cases of essential

amaurosis, where the changes in the optic nerve are not too pronounced, are fit cases for treatment; so are a limited number of the cases of symptomatic cerebral and spinal amaurosis, and especially cases of amblyopia and amaurosis dependent upon toxical and traumatic causes. Where there is pronounced degeneration of the optic nerve, with formation of connective tissue, it is useless to make experiments which would only compromise the remedy. Cases of intra-ocular neuritis optici and its consequences are not fit for this treatment. Symptoms of cerebral irritation and tabes are to be regarded as contra-indications to the use of strychnine.

It is hardly necessary for me to add that, while I advise the use of strychnine, I would by no means neglect the usual rational treatment, especially that directed against the cause of the affection.

Hydrate of chloral I have found of service in counteracting the sleeplessness that is so injurious in amaurosis, and as an antidote to the slight secondary action of the strychnine, without in the least impairing its action upon the impaired vision.

Finally, encouraged by an observation of my own and one printed case, I would recommend to aural surgeons the consideration of strychnine as a remedy in cases of nervous deafness.

I hope soon to publish more complete communications upon this subject.

AIDS FOR THE DIAGNOSIS AND TREATMENT OF CERTAIN DISEASES.*

By S. FLEET SPEIR, M.D.,

SURGEON TO THE BROOKLYN CITY HOSPITAL, TO THE BROOKLYN EYE AND EAR INFIRMARY, ETC. ETC.

The armamentarium of the profession is already so burdened with variety of form and similarity of use, that the introduction of any new instrument can be excused only on the ground that it enables us to accomplish the object in view more rapidly or more perfectly than heretofore.

The instruments which I here present have seemed to me to fulfil certain indications, and to aid in diagnosis to such an extent as to make them not unworthy the attention of this Society.

SELF-RETAINING AND SELF-ILLUMINATING EAR-SPECULUM.

The first instrument to which I invite your attention is a self-retaining ear-speculum.

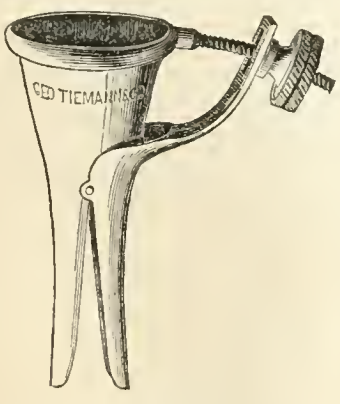


Fig. 1.

It is simple in its construction, and leaves the operator free to use both hands. The instrument is a funnel-shaped bivalve, fastened by a pivot in the centre, and separated at the top by a sliding screw, which opens or shuts the valves at will, by moving in one direction or the other the little nut attached to the screw.

By its use many of the operations upon the ear can be performed without the aid of an assistant, for the operator can use the reflector in one hand, while the other employs an instrument; or if sunlight be used for illumination, both hands are left free to the operator. If it is found necessary to change hands, or lay aside one instrument and take up another, or change the position, it can be done without trouble. The speculum is easily adjusted, and can be modified so as to fit any sized canal, avoiding thus the need of a series of sizes.

Another advantage of this form of speculum is, that it admits of a more perfect illumination of the ear, and brings into view a much wider field; at the same time it allows of the use of instruments for removing wax or for operations on the ear through the speculum.

It also has the advantage of being capable of illumination by indirect rays of light. All that is necessary to secure a full illumination is, that the rays of light shall strike upon the interior of the funnel a short distance inwards, when it will follow on until it reaches the tympanum. This allows of the head of the observer being placed in front of the speculum, and the light upon the side—no special form of light being necessary, and in this sense it may be said to be self-illuminating. When sun-light is used, the strong rays are diffused before they reach the interior—thus affording a better light than can be obtained from its direct rays.

The claims to originality in this instrument are based upon the adaptation of the principle of the bivalve speculum to a convenient form of self-retaining ear-speculum.

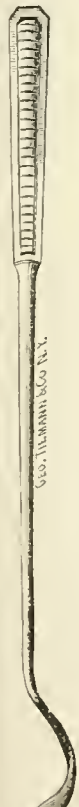


Fig. 2.

Fig. 2 is a convenient form of ear-scoop, intended for use in extracting wax or foreign bodies from the ear. It is made of rather soft metal, which allows of its being bent to any desired curve or angle. It has the advantage of removing wax, etc., without pressure upon the tympanum. By the curve given to the spoon and the shape of the handle, a rotatory movement can be given to it by rolling the handle between the thumb and forefinger, so that the instrument passes between the foreign substance and the wall of the canal without pressure from without, and wax will be removed in the form of a cone. The handle being long and thin, this curette may be used through the self-retaining ear-speculum with the great advantage of perfect illumination while the operation is being performed. The operation of removing wax from the ear is rendered less painful by the instrument detaching the wax from a few only of the hairs in the ear at a time.

Fig. 3.—A Lachrymal Catheter.

The treatment of fistula lachrymalis, dacryocystitis, mucocele, strictures, inflammation, and abscess of the lachrymal passages, has always been a source of annoyance to the surgeon. I have shared in this annoyance to such an extent as to lead me to add a new instrument for the treatment of lachrymal diseases. It may be called a lachrymal catheter. (Fig. 3.)

It is made of silver tubing—having the general form and outline of the lachrymal probe, the difference being

* A paper read before the Kings County Medical Society.

that the lachrymal catheter is a tube—closed and rounded at the end and opened or slit up the centre, to allow of the passage of liquid through it. It is intended, when introduced into the lachrymal sac or nasal canal, to discharge any accumulation of pus or mucus which may have collected there. The lachrymal catheter is to be introduced in the same manner as the lachrymal probe—after which a slight pressure with the finger upon the sac will speedily evacuate its contents through the catheter. Medicated or simple injections of the lachrymal passages can be made through this instrument without the effect of distending those passages. The use of the lachrymal catheter renders the treatment of the above diseases much more simple than any other procedure with which I am acquainted. The catheter is made of four sizes—two sizes on one instrument, after the fashion of the lachrymal probe.

Usually the smaller sizes number I or 2—one large enough for the purpose of discharging the contents of the sac; although when the collection of pus or mucus is thick, or when it is desirable to produce a very free injection, a larger size is more effective.

There are three ways of using the lachrymal catheter: I. For simply discharging the contents of the sac, in which case it affords a free exit to the pus or mucus in a way which is less painful and less injurious than pressing upon the distended sac and trusting to the natural openings alone for the discharge of its contents. In using the catheter for this purpose, it is only necessary to introduce the instrument through the inferior punctum and canaliculus, and to press gently upon the sac, when the pus or mucus will be at once freely discharged. II. To discharge the contents of the sac and to inject it with simple or medicated injections. In this case the instrument is to be introduced into the sac through the inferior punctum and canaliculus, and the injection is to be passed through the upper canaliculus by means of an Anel's syringe. By this operation the injection can be passed through the superior punctum and out again through the catheter lying in the inferior canaliculus, thus affording a means of thoroughly cleansing the sac, and at the same time applying medicated or simple injections.

Fig. 4. The Echoscope.

III. To apply medicated injections to the nasal canal. In this application of the catheter the instrument is passed into the nasal canal in the same manner as is directed for the lachrymal probe, after which the injection is to be passed through the catheter by means of Anel's syringe, the nozzle of which is introduced at the upper part of the slit in the catheter, and the injection is made through its entire length. A great advantage is obtained by the use of the lachrymal catheter for injecting the lachrymal passages, as by means of it a free current may be made to flow through these passages, which, while it medicates their surface, also cleanses them. By turning the catheter round in the canal while the injection is being made to pass, all sides are easily reached.

THE ECHOSCOPE.

The special study which diseases of the chest have received at the hands of many of the profession has rendered diagnosis in this department well-nigh perfect.

Nevertheless, accurate diagnosis is quite as much dependent upon the perfection of the auditory faculties of the observer, as upon the actual state of the science.

When hearing is imperfect, or when the sounds emanating from the chest are not well-pronounced, or when slight degrees of difference are to be detected, the unaided organs of hearing are not always capable of defining them.

In auscultation we may increase our hearing faculties to a great advantage by the use of the stethoscope. Why may we not equally well avail ourselves of additional hearing power in percussion? I suggest for this purpose an instrument similar in some respects to the stethoscope, but so modified as to be used to intensify the sounds produced by percussion. The instrument may be called the Echoscope. (Fig. 4.) It is composed of two tubes curved in such a way that their free extremities may be adjusted to the ears of the observer, and the other ends are connected with a trumpet-shaped sound-receiver, which is supported, when in use, by a rest from the chin of the operator. This contrivance is easily kept in position while the operator is percussing the chest of the patient. The fingers may be used alone, or pleximeter and hammer—the latter is better, as it gives a more uniform strength of sound.

By this instrument the sounds produced by percussion are greatly intensified; sounds which would be very obscure to unaided hearing become quite distinct, and shades of difference are easily detected.

It affords an excellent means of determining by percussion any atrophy or enlargement of the abdominal organs, as well as effusions into the serous cavities, and also the extent of tumors or aneurisms, etc. The instrument has been kept as much as possible in the form of the double stethoscope, so that by removing the trumpet or sound-receiver, and substituting one suitable for the stethoscope, we may combine the two instruments, so as to make one instrument answer the purpose of two.

I believe that such an instrument may be found useful in some obscure cases, and also as an aid in ordinary percussion.

Besides intensifying the percussion sounds, the Echoscope excludes, to a great extent, any extraneous noise, and concentrates the whole attention on the part examined.

TREATMENT OF SCIATICA.

By J. ERNEST MEIERE, M.D.,

NEW YORK.

The following treatment which I have adopted in three cases of sciatica of several years' standing, with the most gratifying results, I publish to the profession, believing by its strict observance we have the means of controlling and of eradicating this disease.

I shall give the history and its treatment of one case, it being the most severe.

Thomas Browning, aged 45, a farmer of western Maryland, presented himself at my office for treatment, having for the eighteen months previous suffered from sciatica. The entire right lower limb was *atrophied*, and he said he could *span it at the largest part of the thigh with one hand*. He was entirely incapacitated from attending to the duties of his farm, and could barely "hobble" about with the aid of a stick. He was very

much discouraged, having previously to my seeing him been under the treatment of several physicians "without much benefit." On my giving him assurance that I could benefit him, he placed himself under my care on the 4th of April, 1870, and continued under treatment, at intervals, until July, when I saw him professionally for the last time.

The treatment was as follows:

He was cupped along the course of the sciatic nerve to the ancle, taking about eight ounces of blood. He was then ordered:

℞. Ol. tiglii gtt. iii.
Fiat in pil. No. 3.
Sig., one each night.

Should the pills operate too frequently their action can be easily checked with tinct. opii.

The following mixture was then given him, which I am confident has a very great controlling influence on the disease.

*℞. Quiniæ sulph. ʒ iss
Potassæ iodidi, ʒ ss.
Vini colch. sen. fl. ʒ i
Aquæ dest. ʒ vi.
Sig., teaspoonful three times daily.

The cupping was repeated on the 8th and 23d of the same month, taking about the same quantity of blood as at the first operation.

The mixture was continued at intervals up to July, but I should advise that there be no interruption in its administration until the termination of the treatment.

The result of the treatment in Mr. Browning's case I will give in his own words:

"Doctor, I am now able to attend to the duties of my farm, having myself ploughed a large field, and my leg has regained its former size and strength, and I am entirely free from pain."

Before concluding this report I would recommend that the limb be subjected to a cold water douche for five or ten minutes, morning and night, both in winter and summer, for several months after complete restoration, and strict attention be paid to the bowels, not permitting a day to pass without an operation.

66 WEST 36th STREET.

Reports of Hospitals.

MANHATTAN EYE AND EAR HOSPITAL.

SEVERAL CASES OF SQUINT.

REPORTED BY D. WEBSTER, M.D.,
HOUSE SURGEON TO THE HOSPITAL.

DIVERGENT SQUINT.—*Case I.* Service of Dr. Roosa.

JANE C., æt. 15, entered hospital Dec. 15, 1870, on account of the unsightly appearance of her eyes.

Diagnosis:—Myopia of both eyes and insufficiency of both internal recti. At the distance of twenty feet one eye turned out and binocular vision was absent. Right eye with glass concave $\frac{1}{10}$ vision = $\frac{1}{2}$. Left eye with glass concave, $\frac{1}{8}$ vision = $\frac{2}{7}$. With left eye letters appeared inclined.

Dec. 17.—Tenotomy of the external rectus of the left eye was performed.

Dec. 20.—There was a divergence of sixteen degrees at the ordinary reading distance.

Jan. 9, 1871.—The patient had nine degrees of insufficiency in the left eye for reading, and eight degrees for the distance.

Jan. 19.—Tenotomy of the right external rectus was performed.

Jan. 30.—There was no insufficiency at reading distance, and, April 17, no insufficiency at any point. The patient was discharged with a pair of spectacles concave one-tenth.

In testing for insufficiency, the prism, colored glass, and candle flame were used. A prism of eight or ten degrees placed base upwards before one eye, always produces diplopia where there is binocular vision. In normal eyes, where the power of the opposing muscles is evenly balanced, the images are seen one above the other in a vertical line; but if insufficiency of either or both of the internal or external recti exists, the images are displaced laterally as well as vertically.

A plane red glass placed before one eye causes the image seen by that eye to appear red. If, while the red glass is held before the right eye of the patient, he sees the red flame at his right hand, the images are said to be homonymous, and one eye turns in; but if, on the other hand, the red flame is seen at his left, the images are said to be crossed, and one eye turns out.

The degree is easily determined by means of a prism sufficiently strong to cause both images to appear in the same vertical line. If the images be homonymous the prism must be held with its base outwards; if crossed, with its base towards the nose.

It is necessary in this experiment to use the prism with the base upwards, and thus produce displacement of the images vertically, because without it the instinctive desire for single vision will render moderate degrees of insufficiency latent. In measuring the insufficiency for the near, the candle is held at the ordinary reading distance; for the far, at about twenty feet.

A similar test, consisting of a vertical line with a dot in the centre of it, is frequently used. The paper with line and dot being held before the patient's eyes at ordinary reading distance, a prism is placed before one eye, base upwards. If the patient sees but one line and two dots, one above the other, the opposing muscular forces are properly balanced; but if two lines as well as two dots are seen, insufficiency of one or both of the interni or externi is evident. The amount of insufficiency may be measured as in the other experiment.

CONVERGENT SQUINT.—*Case II.* Service of Dr. Roosa.

KATE McC., æt. 16, entered hospital April 9, 1870.

Diagnosis:—Convergent, concomitant squint, with latent hypermetropia $\frac{1}{30}$. Vision = $\frac{2}{5}$ in each eye.

April 14.—Both internal recti were divided at one sitting.

April 21.—Right eye vision = $\frac{1}{2}$; left eye vision = 1.

June 4.—Vision = $\frac{2}{10}$ each eye. Nearer than seven inches the patient has crossed images; beyond that point the images are homonymous, and about one inch apart.

Nov. 10.—The patient has single binocular vision at fourteen and a half inches, and eight degrees of insufficiency at eight inches.

Jan. 7, 1871.—The squint is completely removed; there is no insufficiency at any point, and vision = 1 in each eye.

CONVERGENT SQUINT.—*Case III.* Service of Dr. Roosa.

HIRAM B., æt. 17, entered hospital June 4, 1870.

Diagnosis:—Convergent squint, with latent hypermetropia $\frac{1}{30}$. Tenotomy of the internal rectus of the right eye was performed, and the conjunctival wound

* To prevent flocculent solution, the quinine and iodide of potassa should be dissolved in different vessels, or else a precipitate of the insoluble iodide of quinine will be thrown down and the medicine be of no effect.

united by one vertical suture. This being the fourth operation, the previous ones having been performed outside by Dr. Roosa, the muscle was found bound down by adhesions to the globe.

June 9. Single binocular vision at eight inches, homonymous double images beyond.

Divergent Squint.—*Case IV.* Service of Dr. Agnew.

L. McC., æt. 28, entered hospital Feb. 2, 1870.

Diagnosis:—Divergent squint of right eye. Left eye, vision = 1. Right eye, with glass concave $\frac{1}{2}$, vision = $\frac{2}{3}$.

Feb. 17.—Tenotomy of both external recti and advancement of internal rectus of right eye by Dr. Agnew's method.

Feb. 22.—Divergence corrected; asthenopia and headache, which had been previously persistent for eight months, cured.

Convergent Squint.—*Case V.* Service of Dr. Agnew.

B. G., æt. 24, entered hospital March 1, 1871.

Diagnosis:—Convergent, concomitant squint (of nearly four lines)

Right eye vision = $\frac{1}{8}$; left eye vision = $\frac{3}{4}$; refraction, H $\frac{1}{17}$.

March 3.—Tenotomy of both internal recti and conjunctival suture over right.

March 13.—Range of accommodation normal. Reads Snellen No. II. from five to fifteen inches.

Right eye vision = $\frac{2}{3}$; left eye vision $\frac{3}{4}$.

Progress of Medical Science.

The Use of Raw Meat in the treatment of disease is objected to by Dr. M. R. Levi (*Giornale Veneto*) unless the said meat be other than that of the ox or the pig. He recommends the use of chicken, pigeon, or turkey meat for this purpose, as the others are apt to produce the tænia.

Bromide of Potassium for Congestive Headaches.—Dr. J. J. Brinkerhoff, Jr., of Auburn, N. Y., has always succeeded in preventing or in curing the so-called "sick headache" by fifteen-grain doses of bromide of potassium as often as may be required.

Intestinal Lesions in Enteric Fever.—In a paper read before the Medico-Chirurgical Society of Edinburgh (on the 15th of March ultimo), by Dr. J. T. Maclagan, on the Nature of Intestinal Lesions in Enteric Fever, the writer gives, as a synopsis of his views, the following:—

1. The intestinal lesion of enteric fever is specific in character.
2. It may terminate in either resolution or ulceration.
3. When it goes on to ulceration there are two sets of lesions, primary and secondary.
4. The former are an essential part of the disease.
5. The latter are accidental, and the result of the inoculation of healthy glands by the discharges coming from the former.
6. The recognition of these two forms of lesion is necessary to the explanation of the diverse phenomena of the disease.
7. Their relative frequency varies in different cases.
8. The extent of the primary lesion bears a direct relation to the severity of the attack.
9. That of the secondary bears no such relation, they being more likely to predominate in cases in which the general symptoms are mild, and the primary lesions few.
10. One primary lesion is sufficient to produce, directly or indirectly, many secondary.
11. The discharges do not necessarily inoculate every gland over which they pass.
12. The longer they remain in contact with a gland the more likely it is to suffer.
13. The higher up in the intestine the primary lesions are situated, the more numerous, *cæteris paribus*, will be the secondary.
14. Fatal abdominal symptoms are more often the result of secondary than of primary lesions.
15. Relapses are caused by reabsorption of the poison into the system, probably by one or more of the absorbent glands which escaped during the primary attack.
16. Constipation is to be regarded as a source of ultimate danger.
17. No one suffering from enteric fever should go more than two days without a stool.—*Edinburgh Medical Journal.*

Method of Expulsion of the Placenta.—Dr. J. Matthews Duncan contributes an article to the *Edinburgh Medical Journal* on the Mechanism of the Expulsion of the Placenta, in which he says that the arrangement of the membranes which is commonly observed, viz., the fœtal surface instead of the maternal surface of the placenta being presented, is the result of traction on the cord, and is attended with consequences which he describes in the following manner. In the normal mechanism of expulsion, "if the placenta comes edgewise, its uterine surface glides along the surface of the uterus; its foldings, parallel to the length of the maternal passages, are well squeezed together, and little space is offered for the reception of blood flowing from the uterine sinuses. The uterine wall keeps close to the folded placenta. The uterus contracts, forces the placenta downwards, and at last its body is nearly globular and empty. There is no hemorrhage worthy of the name." But if traction has been made, "the insertion of the cord comes first, as is so frequently represented in woodcuts. The placenta is transversely bent upon itself, and puckered up," and, having a certain amount of rigidity, the "cup-like shape cannot be effected without a hollow space being offered for the reception of blood, or indeed without a certain degree of force being exerted to produce the folding—which force will also tend to draw the blood into this hollow from the open uterine sinuses which were in apposition to the part. The inverted mass forms a firm plug, closely filling the vagina. Traction on this plug is exactly like traction on the piston of a pump. If hemorrhage does not naturally take place to fill up the void which tends to be formed beyond the placenta, then it is powerfully induced by the piston-like action of the placenta pulled by the cord. The interior of the uterus, already scarified by the separation of the placenta, requires but this pulling at the cord to be effectually cupped." From this, then, follows the corollary, that in practice, the third stage of labor should be left to nature, and that when interference is required, the natural mechanism should be as closely imitated as circumstances will admit.

Arnica in Pneumonia.—A writer in the *Lancet* recommends strongly the use of arnica in pneumonia, in doses of ten minims of the strong tincture every two hours. The pulse should be reduced by it to 60 or 70, and it descends at times as low as 40 per minute. The relief is immediate and marked.

Use of Iodoform.—The use of this compound, first

brought prominently into notice by Bouchardat, is now employed extensively, not only for glandular enlargements, but also, owing to its anæsthetic properties, in skin diseases accompanied with intense pruritus. Its odor is much more agreeable than that of chloroform, resembling that of saffron. Moretin and Humbert recommend it for internal use as possessing all the advantages of iodine, of which it contains 90 per cent. without any of its inconveniences. It exercises upon the sphincters a local anæsthetic effect so powerful, that defecation is sometimes performed unconsciously after its use; it therefore forms an admirable suppository in cases of hemorrhoids, etc. Môutre's formula is, Iodoform, powdered, 20 grains; cocoa butter, one ounce; melt, mix, and divide into six suppositories. For frictions, the ointment is used in the strength of one drachm to the ounce of simple ointment.—*Med. Times & Gazette.*

Balsam of Peru in Scabies.—This remedy has lately been spoken of as a substitute for storax in itch, and it is claimed that it is equally efficacious and more easily applied. Though more expensive than storax, it is actually cheaper in practice, as much less is used. Among the advantages claimed for it is, that there is no necessity for detention in hospital. The patient is stripped and rubbed firmly from head to foot, but not so roughly as to chafe him. It is absorbed into the burrows and destroys the eggs, and the whole parasiticide process may be accomplished in an hour. A second rubbing may be instituted in about ten days, as some stray acari may infest the body from the clothes, but there is no necessity for baking or disinfecting the latter.—*Edinburgh Med. Jour., and Amer. Jour. of Derm. and Syph.*

Sigmund on Syphilis.—In the *Centralblatt f. d. Med. Wissen.* Dr. Sigmund says that the first stage of syphilis embraces the time of the eruption on the skin and mucous membranes. The bearing of this time he explains as follows:—

1. It is not correct to say that in some cases the skin affection is wanting, and that further on forms of more developed syphilis appear without secondaries.

2. In about half of the cases of syphilis the disease is completely at an end after the first stage is past.

There is no such thing as latent syphilis: the dyscrasia is recognizable, or does not exist. Clinical experience now shows us that the dyscrasia sometimes gets cured without any therapeutic remedy; and also that there is no existing treatment which can hinder the appearance of the first stage of the disease. He thinks, however, that internal remedies may prevent the appearance of the tertiary symptoms, or at any rate make them appear more rarely. He admits that this is denied by many persons, but his experience of many years makes him believe that he is correct in saying so. He uses mercurial ointment for some time in the eruptive period. The value of iodide of potassium, says Sigmund, consists in its antiphlogistic action on the lymphatic glands, in the ease it thus gives to all pains, whether in the head, limbs, or in whatever part of the body they occur. During the use of this remedy for several months the appearances of the first stage of syphilis fade away, as indeed takes place when no internal remedy is made use of. Chlorate of potash is of no use in syphilis, says Sigmund, and chromate of potash also is worse than useless. The "decoctions" are useless also. And as syphilis is a chronic disease let us not omit hygienic remedies.

Digitalis, Aconite, and Opium, as External Applications.—Dr. Fussell writes to the *British Medical Journal* that he has no doubt but that the efficacy of employing certain drugs externally depends on the mode of application, and gives a case where no good result followed the internal administration of medicines, and having advised the application of one ounce of the tincture of digitalis sprinkled over a piece of spongiopiline wrung out of boiling water, vomiting and occasional syncope followed, but after the administration of brandy the patient rallied. He considers the symptoms arose from the digitalis. Cases are reported by Drs. Reynolds and Jenkins, where poultices of digitalis leaves applied over the abdomen in suppression of urine gave satisfactory results. In severe abdominal pain, Dr. Fussell is using, with benefit to his patient, a spongio-piline bandage sprinkled with tincture of aconite and solution of opium.—*The Doctor.*

Neuralgia of Jaw.—W. J. Sneed, Nashville, Tenn. (*Nashville Journ. Medicine and Surgery*), describes, occurring in a farmer æt. 63, a case of neuralgia of the jawbone, first specifically noticed by Prof. Gross of Philadelphia; a disease due to compression of the branches of nerves distributed through the wasted alveolar process depending on the encroachment of osseous matter upon the walls of the canals in which they are inclosed, in elderly, edentulous persons. Although a year ago he performed Carnochan's operation of exsecting the second branch of the fifth nerve of the left side, with great relief, the neuralgia recently returned, and located itself in the left alveolar process of the upper jaw. The affected, hard, and eburnated alveolar process was removed by an incision along its ridge, from the incisor to the second molar tooth, turning aside the soft parts and cutting off the affected bone with bone forceps and gouge. There was but little hemorrhage, and very little suffering afterwards. On the third day the patient left the hospital and has not been heard from since.

Resection of the Humerus.—Five cases of resection of humerus are reported by Dr. J. W. Thompson, Paducah, Ky. (*Nashville Journ. Medicine and Surgery*). In the *first*, 4 inches of the middle of the shaft of the bone were removed. There was a shortening of 3 inches and no bony union. It was not regarded as a very successful result.

Three inches of the upper portion of the bone, including the head, were resected in the *second* case. There was shortening of 2¼ inches, with a rather good use of the forearm. In the *third* case, 5½ inches were removed, including the head. A shortening of 3½ inches was exhibited; no bony union. The limb is quite useful. The operation in this case was performed by Dr. J. S. Gilmore, Mobile, Ala. The *fourth* operation was performed by Dr. Schmidt, of New Orleans, La., and 5 inches of the upper third were removed. There exists 3¾ inches shortening; no bony union. The patient can write with it, and use a knife.

Two inches of shaft were removed from the *fifth* patient; the exact shortening was one inch. The patient can attend to all kinds of work on a farm, though the wounded arm is not quite so strong as the other.

The two first patients were Federal soldiers, wounded in 1862–4. The three last were Confederate soldiers, wounded at the battles of the Wilderness, Chancellorsville, and New Hope Church, respectively.

Similarity between Nocturnal Enuresis and Epilepsy.—Dr. J. B. Bradbury, Physician to Addenbrooke's Hospital, Cambridge (*British Med. Journ.*), says there is one point in connection with nocturnal enuresis which has interested him very much, and that is the close similarity between this affection and epilepsy; indeed, nocturnal enuresis might, without any

great error, be called epilepsy of the bladder. The points in which the analogy holds are: 1st. Enuresis and epilepsy are both markedly hereditary, and one neurosis may be transformed into the other; patients who have had incontinence of urine in youth sometimes becoming epileptic after puberty. 2d. Both affections are influenced by the same system of nerves—the sympathetic, which may, under certain circumstances, induce spasm in the muscular fibres of the small arteries of the brain, as it does in the unstriped muscular fibres of the detrusor vesicæ muscle. 3d. Belladonna is of service in the treatment of both these affections, and probably acts by its influence on the sympathetic. 4th. Epilepsy may be either essential or due to reflex irritation, and so may nocturnal enuresis.

He is of opinion that hydrate of chloral will be found useful in the treatment of some forms of this affection.

Treatment of Enlarged Tonsils.—Dr. Rumbold, St. Louis, Mo. (*Med. Archives*), has treated successfully a number of cases of enlarged tonsils by injecting the glands, by means of a hypodermic syringe, with a solution of iodine—iodine gr. ij., potass. iod. ℈ij., aquæ ℥ j. Generally a slight inflammation followed the injection, but soon subsided. From 12 to 17 injections—ordinarily two a week—were sufficient to reduce the gland to its normal condition. The advantage claimed for this mode of treatment was, saving the substance and function of the gland.

Dressing for Stumps.—Dr. George Buchanan, of the Glasgow Infirmary, advocates the following dressing for stumps. A few strips of lint dipped in carbolized oil—with a free opening for discharge to drain away—changed once or twice in twenty-four hours, according to the amount and nature of the discharge.

Belladonna in Typhoid Fever.—Dr. Lewis S. Pilcher, Passed Asst. Surgeon U. S. N. (*Mich. Univ. Med. Journ.*), having been attracted by the positive and warm terms in which the effects of belladonna, given in typhoid fever, are stated by Dr. B. Kelly, of Dublin, finds that under its influence, within from 24–48 hours after the first administration of the drug, delirium, coma, and subsultus quickly vanish, and are succeeded by calmness and clearness of the intellect, by natural sleep, and complete control of all the voluntary muscles. Diarrhœa is checked, and healthy, consistent evacuations are established.

Chloral in Delirium Tremens.—In the *Centralblatt für die Med. Wissen.* Dr. Curschmann relates some experiments in the treatment of delirium tremens by chloral hydrate. There were twenty-four males thus treated from the age of twenty-four to fifty. Two cases were complicated by pneumonia, four with surgical diseases, and the rest without complication. All were treated by chloral hydrate in wine, and in two instances by subcutaneous injection, which is not to be recommended. Clysters cannot be used in D. T. The dose given was 3 to 4 grammes—one drachm at first, afterwards more. The smallest quantity which caused sleep was five grammes, but one patient had as much as 25 grammes in 22 hours. The remedy was more successful in beer drinkers than in spirit drinkers. The pulse and respirations frequently sank soon after the administration of the drug. The duration of the sleep was 8 to 21 hours, and the patients awoke cured. He considers that the cure by chloral is much more rapid in D. T. than when any other remedy is made use of.

Influence of Alcohol on the Sight.—M. Galezowski recently, at a sitting of the Paris Academy of Medicine, pointed out how many cases he had seen among the poorer classes recently, of loss of vision from chronic use of alcohol. The form of loss of sight is that of amblyopia. He also mentions that intemperate persons do not do well when operated on for diseases of the eye.

Vaccinating with Secondary Lymph.—Our Manchester correspondent writes:—There is no doubt that much lymph from revaccinated persons is being used in Manchester, and at least one public vaccinator is in the habit of indiscriminately employing virgin lymph and the lymph of revaccination. The *à priori* argument which this gentleman adduces for the practice is that the production of a typical vesicle ("a drop of dew upon a rose-leaf") points to the fact that the original vaccine virus is quite worn out, and the individual is therefore as though he had never been vaccinated. The *d posteriori* argument which he urges is, that he obtains typical vesicles from this lymph, and that in all cases when it has taken effect the vaccinated persons resist the influence of fresh vaccine matter as decidedly as they do when virgin lymph has been employed; and, by parity of reasoning, he maintains that if they resist vaccinia, they will equally resist variola.—*British Med. Journal.*

Life-Like in Death.—Rossbach, in a late number of Virchow's *Archiv* (Band 51), has given an interesting account of numerous cases of sudden death on the fields of Beaumont and Sedan, in which the bodies of those killed retained the position and the expression of face present just before death. In one case, a group of six French soldiers were killed by the explosion of a single shell as they were breakfasting in a slight hollow. The shell had struck one of them sitting in the middle full in the back, where it was partly lodged; the fragments had torn away his thighs and buttocks, and killed his comrades. From one of them the skull was carried off, while the face still retained the expression of laughter at the joke of a companion. The next one to him still held delicately raised to his lips, between the forefinger and thumb, a tin cup from which he was about to drink when the explosion had taken off the whole of the upper part of the face and head. The close manner in which they were seated together had prevented the bodies from falling after the lapse of twenty-four hours. In another case a soldier shot through the breast lay half reclining on one side, with the photograph of his wife or lover held up straight before him. Rossbach cannot admit that in such cases the nervous centres must necessarily be injured, nor that death must have been instantaneous. Rigor mortis must have set in between the last moment of life and the first of death.—*Lancet.*

Treatment of Aneurism by Manipulation.—There are at present in the General Hospital at Birmingham two most interesting cases under the care of Mr. Oliver Pemberton, which illustrate the marked success which sometimes follows the adoption of Sir W. Fergusson's treatment of aneurismal sacs.

The first is the case of a comparatively young man with a popliteal aneurism, which was accidentally cured by the manipulation which Mr. Pemberton employed in the examination of the case.

The second is one of subclavian aneurism, where, encouraged by his accidental success, Mr. Pemberton kneaded the tumor, and with the most brilliant results. The sac was consolidated, the artery has become blocked up, and the collateral circulation has become completely established. Shortly after the symptoms of obliteration were evident, the suprascapular artery could be felt crossing the sac, and day by day its increase has been

marked. The sac probably originated from behind the scalenus anticus.—*Lancet.*

A New Test for the Phosphates.—Dr. Heisch found that sugar was a very delicate test for water contaminated with sewage, its addition showing in a short time, with the aid of the microscope, some very characteristic fungoid growth. Dr. Frankland corroborates Dr. Heisch's results. But he has found that the presence of sewage matter alone in water is not sufficient to produce this singular result. It must be accompanied by the presence of some of the phosphates. He also finds that germs from the atmosphere in company with phosphates yield similarly formed cells. The conclusion therefore is, that though sugar is not a reliable test for sewage matter, it is likely to prove a wonderfully delicate indication of the existence of phosphates.—*Medical Press and Circular.*

The Preservation of Pepsine.—Dr. Lionel Beale writes to *Nature* to the effect that the means hitherto adopted for preparing pepsine for medical purposes are clumsy and inefficient. Dr. Beale, however, claims one exception, a process described by himself in 1858. It simply consists in quickly drying the mucus expressed from the pig's stomach glands upon glass plates. The dried mucus is then powdered, and kept in stoppered bottles. It retains its properties for years. Eight-tenths of a grain will dissolve *one hundred grains* of coagulated white of egg. From this powder is easily prepared, by solution in distilled water, a perfectly clear and colorless digestive fluid of great activity, which *can be readily filtered.—Med. Press and Circular.*

Puncture of the Abdomen for the Relief of Tympanitis.—The *Dublin Quar. Jour. of Med. Science* mentions three cases in which marked relief was afforded by this operation. In one the distension was caused by the pressure of an ovarian tumor on the intestine. The puncture was made in the cœcal region, and was repeated daily, more than fifty times, at the request of the patient. At the autopsy no traces of the punctures could be observed. The second case was that of a man 61 years old. Eight punctures were made in 14 days, with great relief and no unpleasant results. In another case, reported in the *Practitioner*, the operation was performed upon a patient with double pneumonia. The punctures, two in number, were made over the transverse and descending colon, and gave great relief. The patient, however, died of pneumonia, but no traces of the puncture could be found after death, except on the surface of the body. The instrument used was an exploring trochar (*m. 1 Weiss*).

The Tolerance of Chloroform.—Dr. Edward R. Squibb, of Brooklyn, N. Y. (*New York Med. Journal*), remarks that the greatest consumption of chloroform he ever met with was in a patient of Dr. Gustave Morelli, of New York City. This patient was the widow of an Italian physician; her age 48, and her appearance healthy. She was subject to hereditary migratory gout, the sudden pain of which was so severe that she finally gave up all slower means of temporary alleviation for the prompt action of chloroform. Between the 31st of March and the 16th of December, 1865, a record was kept, and during this time, by Dr. Morelli's direction, she was supplied by Dr. Squibb with fifty-three pounds of purified chloroform. During her acute attacks she not unfrequently used two pounds each day.

Tracheotomy.—Dr. George Buchanan, Lecturer on Clinical Surgery, Glasgow Royal Infirmary, in a recent clinical lecture on "Tracheotomy," states that he has performed this operation in thirty-nine hopeless cases; of these thirteen recovered, or one out of every three operated on.

Is it Right to Vaccinate or Revaccinate Pregnant Women?—Dr. Robert Barnes, of London (*British Medical Journal*), in answer to this question, states that so far is vaccination from causing abortion, cases are known in which the fœtus has gone safely through the vaccine disease *in utero*, so that it has subsequently been proof against vaccination. He believes we may conclude, in the absence of decisive evidence of special danger, that pregnant women are entitled to equal protection against smallpox with the rest of the community; and that vaccination or revaccination should be practised on pregnant women, in their own interest as well as in that of the community of which they form a part.

Clitoridectomy.—Dr. J. P. White, of Buffalo, N. Y. (*Am. Jour. of Insanity*), extirpated the clitoris in an epileptic girl, aged 20 years, who was addicted to onanism. The habit was broken up entirely. It is now about three years since the operation; the habit has not returned, nor have the epileptic paroxysms reappeared. He has operated in two other instances. In one case the paroxysms were postponed a month or two, but the epilepsy was not interrupted. Two of the cases were young girls, where the habit of masturbation was established at boarding school. Dr. White would suggest the substitution of the division of the pubic nerves subcutaneously for the more offensive mutilation of clitoridectomy. This operation would be far less disgusting, and may afford equal relief. In some instances, which have come under his observation, the patients were wonderfully susceptible to the influence of this peculiar excitement; and upon applying the finger to the clitoris, it acted almost like a galvanic shock.

Nostalgia a Cause of Insanity.—Dr. Ralph L. Parsons, N. Y. City Lunatic Asylum (*Am. Jour. Insanity*), holds that nostalgia is an important cause of insanity in our foreign population, and in his opinion tends to render the prognosis of those insane from this cause unfavorable. Again, the majority of our Irish patients are of a low order of intelligence, and very many of them have imperfectly developed brains. When such persons become insane, he is inclined to think that the prognosis is peculiarly unfavorable. It is not improbable that an undue proportion of this class of the Irish emigrate to this country.

The Local and Superficial Anæsthetic Effects of the Phenols.—According to Dr. Edward R. Squibb, of Brooklyn, N. Y. (*New York Med. Journal*), the best of these is cresol or cresylic acid, and next phenol or the crystallized carbolic acid. But practically the cheap mixture of the two, called coal-tar creasote or impure carbolic acid, is as good as either. The prompt and complete effect of very dilute aqueous solutions of this creasote upon the pain of burns, erysipelas, etc., led him to infer peculiar anæsthetic properties many years ago, and the numbness or insensibility produced upon the hands by handling it confirmed the idea.

Syphilitic Contagion.—Dr. Alfred Fournier (*Med. Times and Gazette*), the successor of M. Ricord in the Hôpital du Midi—the venereal hospital for males in Paris—in a thesis on syphilitic contagion, has, in conjunction with M. Puche, carefully traced the disease to its source in 873 cases. Out of the 873 cases coming promiscuously under their care, 625 contracted syphilis from women registered by the police and carefully and frequently examined by the police surgeon.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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New York, June 15, 1871.

CONCERNING THE CRIME OF ABORTION.

FROM the time the Hippocratic oath was first administered, from the time that the first follower of the great father of medicine was made to swear that he would "give no deadly medicine to any one if asked, nor suggest any such counsel; and in like manner would not give to a woman a pessary to produce abortion," the profession of medicine has striven, by precept and by example, to be true to its trusts. From time immemorial the crime of abortion has been held in special abhorrence. No matter what class of individuals, whether statesmen, political economists, philosophers, or divines have been engaged in the discussion of the enormity of the crime, the physician as a radical has always led the van. With him there has been no excuse, no extenuation for the dreadful abuse of nature's most sacred law. He has always been proud to think that the profession of his choice was above the suspicion of even an accessory to the production of an abortion. All over the civilized world wherever a medical man is to be found, and wherever legitimate medicine is respected, the same noble and honorable sentiment is entertained. No language has been deemed too pointed or too severe to express the just abhorrence of one of the most dreadful of crimes, one for the performance of which there is the least excuse, one for which the punishment should be proportionably severe. The discussions which have filled the pages of the medical and other scientific journals of the past century have breathed but one sentiment, and have refused to compromise the question in any shape or degree.

Within the past few years the views of the profession have, if possible, been more positive than heretofore, and their opinions have been entertained by every class of thinkers. The secular press has taken up the subject, and with its scathing pen has anathematized the evil-doers; the pulpit has thundered its maledictions against the criminals—has thrown aside prudery and presented the naked facts to a sinning community; and lastly, the bar has striven to do its part in punishment, and from the judge's bench of this city we have had charges to the jury which, in moral tone, equal in highmindedness what the verdict does in justice.

The profession cannot fail to congratulate itself on such a state of things, neither can they fail to recognize the claims which every one of the philanthropists has upon the esteem, the respect, and the good will of the profession. All have aided in the good work; but no one can fail to see that the crime can be best stayed by severe and just punishment. For this latter, the courses of Judge Gunning S. Bedford and District-Attorney Garvin of this city, merit especially the hearty approval of every medical man. Every member of our profession acquainted with the manner in which the District-Attorney has prosecuted the cases and the Judge has measured out justice to the convicted criminals, will be ready with a hearty endorsement of the recent action of the New York Academy of Medicine. In order that such an action may stand upon record to the credit of Judge Bedford and Mr. Garvin on the one hand, and the profession on the other, we present the following preamble and resolutions adopted at the meeting held May 18, 1871:—

"*Whereas*, The pervading crime of abortion as a regularly advertised business has, in this city and county, been hitherto opposed by the medical profession without the uniform and efficient coöperation of the State officers and the courts which has been desired and reasonably expected:

"*Resolved*, That the profession hail the advent of any administration which will secure it such long-desired support as shall enable it to successfully contend against this wide-spread crime, practised, in too many instances, by malefactors possessing or pretending to possess medical diplomas.

"*Resolved*, That Judge Gunning S. Bedford, by his manner of conducting the trials of those notorious abortionists and enemies of mankind, Wolff and Thomas Lookup, by the high moral tone of his addresses to, and by his clear and specific instructions given to the juries, and finally, by his prompt and just sentences, eminently honored the name he bears, has done infinite service to society, has merited the commendation and shall have the most cordial approval of the New York Academy of Medicine, as he doubtless will of every member of the profession who properly estimates his duty and morality.

"*Resolved*, That an official copy of this expression of the Academy, and the minutes pertaining to it, be sent to Judge Bedford, to our efficient District-Attorney Garvin, to the President of the New York Bar Association, and to the daily papers of this city."

W. T. WHITE, M.D.,
Secretary.

This, certainly, is one of the fruits of labor in the right direction, and as such is a cause for encouragement. But at the very time we are congratulating ourselves, a circumstance makes it necessary to mingle our joy with sorrow. From what has been said, considering the views of our profession upon abortion, it might be thought impossible for any member in good standing to have been found guilty of the crime. But the fact is that such a crime has been committed, and that Dr. James B. Cutter, of Newark, N. J., is the criminal. We rejoice that a prominent member of the

legal profession is interested in seconding the views of the profession, but at the same time are compelled to bow our heads in shame that one of our own number has proved to be an apostate. This melancholy case occurs so shortly after the action of the Academy of Medicine that it seems as if circumstances conspired to mingle our congratulation with mortification. We are, however, compelled to accept the conclusion, and common justice demands that the facts of the one be stated with those of the other. It seems that a young woman came by accident into Dr. Cutter's office, told him a pitiful tale of systematic seduction, and urged him to produce an abortion. The situation of the girl is said to have been trying in the extreme, poor, unprotected, and, if exposed, utterly ruined. She did not appeal in vain, and Dr. Cutter by manual interference produced abortion. Becoming subsequently very ill, and fearing death, the patient sent for the county physician, and charged Cutter with the crime. He was arrested, but liberated on one thousand dollars bail to await the sitting of the Grand Jury. Before the Grand Jury he pleaded not guilty, was indicted, and the bail was raised to five thousand dollars. Being unable to raise the amount, and apparently deserted by his friends, he is remanded to the County Jail. On the day fixed for the trial, May 23, he pleads guilty, and is immediately remanded for sentence. The following remarks, with the accompanying sentence, pronounced May 27, 1871, by Judge David A. Depue (Essex Co., N. J., Oyer and Terminer), complete the history of the case:

"James B. Cutter—You are indicted for misdemeanor—what is known in law as criminal abortion. On being charged you acknowledged your guilt and pleaded guilty. The Court has been very much perplexed to know what disposition to make of your case. The offence with which you are charged is a serious one—one which the Legislature regards as a high crime, and fixes a punishment in the State prison for a term not exceeding seven years. The Court, regarding the nature and effect of the plea, the dignity of your profession, your education and intelligence—being aware not only of the legal consequences of the act, but also the moral guilt, felt called upon to make an example in your case, and proposed to punish to some extent, to answer what the law seems to require in cases of this kind. There are in your case many circumstances to influence us to mitigate the penalty. Since the time you pleaded guilty you have openly acknowledged the offence, and have also professed that contrition and sorrow which every one ought to feel in your position. We have also had laid before us a certificate signed by your own medical brethren of this State and the State of New York—gentlemen well known for respectability and high standing in your profession—names known everywhere where fame can carry their names. These persons have spoken of you in the highest possible manner; and your medical brethren of New York have certified to your previous good character, bearing witness to your scientific attainments and high standing previous to this offence. We have also a certificate signed by numerous of the most prominent business men of the city of Newark, asking the Court to save you from imprisonment, and punish you by a fine instead of subjecting you to punishment that would be ignominious. Your high standing, deserving a good name by your skill in your profession, the request by your medical brethren—one the chairman of the Grand Jury—the fact that you have already been confined in the county jail and must have suffered very considerably personally from the publicity of the charge—all these circumstances the Court take into consideration, and to heed them the Court will inflict a punishment, not by imprisonment, but by fine. The statute under which the punishment is inflicted provides that it is not to exceed $500, and we feel called upon to give the extreme penalty. The sentence of the Court is that you pay a fine of $500, and stand committed until the fine and costs of prosecution are paid."

It is claimed that mixed up with this case there are some mitigating circumstances, but in reality associated with it is a great deal of sentimentality, if not romance. A pleading, unprotected, distracted girl, and a compassionate physician who must assist her without fee and against all odds, may do well enough as the basis of a plot for a sentimental novel, but it is altogether another thing when the said compassionate physician deliberately violates the most sacred duty of his profession. This Dr. Cutter has unquestionably done, and before the bar of professional opinion he must stand condemned. There is hardly a physician in this or any other country who has not been urged by some distracted female to bring on abortion, and yet if we are all to be compassionate, and have not resolution enough to follow the dictates of duty, what a race of cowardly murderers we would be! Dr. Cutter cannot be classed, in a moral sense, with the professional abortionist, but as an educated and skilful gynæcologist he is, in truth, more culpable. No one knew better than he the risks of such an operation to the mother. It is true the mother recovered, but no one can deny that under the circumstances such a result was due more to good fortune than anything else. The destruction of what would have been a human being has associated with it, not only in a professional but in a moral sense, no mitigating circumstances. If the profession must admit it, then a precedent is established for deliberate crime from which even a heathen would recoil.

The question may come up in this case, whether Dr. Cutter would have acknowledged his guilt if he were not forced to do so—whether, if the girl had not become alarmed, the crime would have ever come to light. From the fact that he at first pleaded not guilty, it would seem that, even for the sake of repenting, he had no desire to criminate himself. How many similar cases are possibly hidden in the dark doings of some of our brethren, simply because the perpetrators of the crime are fortunate in not killing more than the infant! In Dr. Cutter's case it might be inferred that after compulsory confession, contrition was a virtue of necessity.

The responsibility of the sentence of the Court rests entirely with the Judge, and concerning its justice each has the privilege of determining for himself. Compared with the sentences inflicted upon similar criminals by Judge Bedford, it is merely nominal. Although

Dr. Cutter would have been a greater sufferer by a sentence of seven years' imprisonment, and although, personally, we may be glad that he escaped such an ignominious punishment, still, had such a penalty been inflicted, its general effect would have been most salutary. In reality, as to the crime itself he is not less guilty than Wolff, or Thomas Lookup, both of whom are serving their full time in State Prison.

But the sentence has been pronounced; Dr. Cutter has paid his fine, and is, in the eye of the law, once more a free man. In a legal sense he has been punished for his crime. No matter what may have been the inducements to acknowledge his guilt, it is certain that he is now penitent. We believe him to be sincere as to his promises for the future, but he still owes it to the profession, for the disgrace which he has voluntarily inflicted upon it, to atone for the past with bowed head and bended knee. He has dishonored, degraded, and humiliated his calling, and no penance is too severe for him; but if he shows the right sort of contrition forgiveness should not be denied him, and the profession should strive to forget the past and trust to the future.

We have made the foregoing remarks in the belief that they will be sanctioned by the profession at large, and that in the matter of abortions it will be ready to aid the efforts of Judge Bedford and District-Attorney Garvin on the one hand, and to condemn the crime of Cutter on the other hand. If our opinions are ill-founded, and if our interpretations of the right are not impartial, the facts in the respective cases may serve to add some items of interest to the general history of the subject of criminal abortions.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 4th, 1871.

Dr. E. R. Peaslee, in the Chair.

THE MICROSCOPE AND THE STUDY OF CANCER CELLS.

Dr. S. Fleet Speir's paper on "The Use of the Microscope in the Differential Diagnosis of Morbid Growths, with a New Method for Determining the Diagnosis, Prognosis, and Treatment of Tumors and Cancers," read April 6th, was discussed.

After describing the molecular and exudation theories, Dr. Speir says that the cell is, after all, the ultimate element by which we must determine the character of morbid growths. The object, then, of all microscopic examinations of tumors is, to discover the peculiar kinds of cells which compose the specimen under examination. This is readily done; and the profession has already a great accumulation of material of this kind. Observations of this character have been made in sufficient number to establish thoroughly the peculiar varieties of cellular growths. This being done, the only question which remains is: Have we a specific cancer cell, and is it diagnostic? Can we determine with certainty that one tumor is cancerous and another benign in its nature, by the character of its cells?

For his own part, the author is willing to count himself among those who have a positive and firm conviction of the existence of certain cells, which, when found in morbid growths, are diagnostic of cancer.

He believes we have two such cells. One is the "mother cell," or "compound cancer cell," long recognized by authors as the "cancer cell." When we see this cell, there is no longer any doubt that the specimen under consideration is a cancer.

If we are to render the best service to the patient attacked with this disease, we must know early in the case with what we have to deal; for this would influence to a great extent the treatment of a tumor. This cannot be told in the majority of cases, if the presence of the "compound cancer cell" is relied upon.

Dr. Speir thinks that what have been called "free nuclei" by authors, in their descriptions of cancer, are the elements upon which we can rely with great certainty, and are in reality as specific cancer cells as the mother cell. This is no nucleus, but a complete cell.

The peculiar cell to which he refers is found, to a greater or less extent, in all cancers; and in the early as well as in the later stages of their development. It has for its parent type the connective tissue corpuscle—the embryoplastic cell. It is, doubtless, from this physiological type that all the other cells which compose the body have their origin. It is sparsely scattered about in the tissues of the adult, but it is found in great abundance in the fœtus. It is best studied in the early development of the embryo, where, quickly changing its form, it passes readily into the fusiform caudate, epithelial or fibre cell, etc. It was after a careful study of the cells and their development in the embryo, that the doctrine of heterology was found to be untenable, as it related to the division of tumors.

According to the author, most pathologists have abandoned the use of the term *heterologous*, as it was first used to indicate malignity; and now it is generally restricted in its use to indicate only the abnormal manner in which tumors sometimes arise, viz.: such a growth as is at variance with the typical formation of the body. It is thought that by a careful search into the early elements of the tissues, a physiological type has been found for every pathological formation.

Heterology now means an error in the arrangement of the elements composing a tumor as to place or situation.

Homology means an error as regards the quantity of elements in the structure—an hypertrophy.

He desires to use these as thus defined, and to add to them another signification.

At one time tumors were divided into heterologous and homologous growths, the idea of malignity being attached to heterologous ones, and a benign character attributed to the homologous growths. These terms are good to retain, but their application, as it was formerly understood, must be changed; for what were supposed to be heterologous growths are in reality not so, if considered in the relation of the growth, as a tissue, to the other tissues of the body; and if the use of the word heterologous is restricted to the growth itself, or rather to the tissue from which it has sprung, the cancer cell is not found to be *heterologous* but *homologous*—that is to say, the tendency of cell development in a cancer is to reproduce cells of one kind, and in a cancer; the microscope shows that those tumors are the most malignant which are composed of a large number of cells of the same kind, each cell reproducing its own kind, and having no tendency to take part in the support and normal growth of the tissue in which they are found. They have no natural limitation—influencing the cells in the neighboring parts to follow in the morbid process, and in the tendency which

they have to reproduce cells of a like kind with themselves; and if it were possible for the patient to live long enough, and the process to continue, the whole structure of the body would become in the end one mass of homologous cells.

In the examination of a given tumor, to determine its character as to malignity, there are two questions to be answered by the microscope: 1st. Is the specimen of the tumor heterologous or homologous, considered in its relations to the original or parent type of the tissue in which it is located? 2d. Is the specimen of cell found upon microscopic examination heterologous or homologous, considered as regards the intimate structure of the tumor itself, in the relation of cell to cell; that is, do the cells in the specimen present any decided variety of form?

A tumor may be heterologous as considered in its relation to itself as an individual structure, or heterologous in its relations to the other tissues of the body; and in both cases be benign in its character.

But a tumor which is heterologous as to the other tissues, and homologous as to its own cells, is surely malignant. Again, a tumor which is homologous as to the other tisues, and also homologous as to its own cells, is also malignant. But a growth which is homologous as to the other tissues of the body, and heterologous as to its own elements is in almost all cases benign. These are the rules which may be applied to all kinds of tumors; and if the specimens for examination are taken in the stage of actual development of the tumor, and before its retrograde metamorphosis, they will usually be sufficient to determine with great accuracy the quality and degree of malignity of morbid growths.

It has been supposed that great irregularity of form was one of the characteristics of cancer cells. This is not necessarily so; but it is usual to find in tumors which come beween the class of pure encephaloid and scirrhus tumors, an admixture of cells; and these cells will present a great variety of form. They are apparently the last efforts of nature to maintain the original tissue as a heterologous structure. In this sense, then, the great variety of cells found in some cancers is an accidental characteristic, which may or may not be present, and should be valued accordingly. Doubtless, industrious observers will hereafter find many varieties of such cells; but he thinks it matters very little whether they be cells having one spine or two spines—tails or ciliæ—they belong all to this class of aborted cells.

The following are the varieties of cancer in the order of their malignity—encephaloid cancer, scirrhus cancer, epithelioma, enchondroma. Encephaloid must be acknowledged as the type of cancer and malignity, and, examined according to the preceding rules, presents the following varieties: It may be

1st. Heterologous as to the other tissues, and homologous as to its own cells. } Malignant.

Again—2d. Homologous as to the other tissues, and homologous as to its own cells. } Malignant.

Encephaloid only occurs in these two forms. When a tumor passes the limits, it must be classed with one of the other forms of growth.

Scirrhus is subject to degenerate into encephaloid, and is a grade higher in the scale of pathological tissues as to structure.

The structure of an epithelioma is not composed always of epithelial cells throughout its entire extent, and it is usually only towards the extreme surface that an abundance of well-formed epithelial cells is found. When an epithelioma is seated upon the skin, it usualiy extends itself by spreading to the surrounding surface and deeper parts, and is seldom found as a growth or tumor. True cancer-cells, when they exist in an epithelioma, are to be found below the surface. Epithelioma remains benign so long as there is any heterology of structure as concerns the cellular elements; for example, presenting the connective tissue corpuscles, fusiform cells, and epithelial cells together. As soon as the cells considered as parts of the tumor, as a whole (cell to cell), become homologous, then malignity begins. In this way an epithelial growth may become as thoroughly malignant as the worst form of encephaloid.

Enchondroma presents the same qualities with regard to malignity as epithelioma. They are both most frequently benign in their nature.

These and all the other subdivisions of cancerous growths depend so much upon retrograde changes (homologous changes), in the form of their cellular elements, for the malignant type which they sometimes assume, that it is doubtful whether they ought to be classed with the encephaloid or scirrhus forms. Myoma and osteoma, which come next in the scale, are subj ct to the same degeneration, and might equally be denominated cancer. A pure epithelioma or enchondroma cannot be malignant, so long as they sustain their structure perfect, as such enchondroma belongs really to the semi-malignant group.

Classification of the Subdivisions of Morbid Growths.

Malignant.	Encephaloid.
	Scirrhus.
Semi-malignant.	Epithelioma.
	Myoma.
	Enchondroma.
Benign.	Glandular tumors, etc., tubercle, and some kinds of hypertrophy, etc.

This classification is intended to represent well-defined forms of growth. They may all vary, however, sooner or later in their course; and may even pass from one into the other. To be *malignant*, a growth must be either homologous as to the other tissues, and homologous as to its own cells; or, heterologous as to the other tissues, and homologous as to its own cells.

A *semi-malignant* growth is heterologous as to the other tissues, and heterologous as to its own cells.

A *benign* growth is homologous as to the other tissues, and heterologous as to its own cells.

Dr. Speir adds that, to determine the character of a morbid growth or tumor by the aid of the microscope, the specimen of tissue used for examination must be taken from the part of the tumor which is either in the earlier stage of growth, or at its height, and which is not undergoing any retrograde metamorphosis. The examination must be carefully made, and several portions from different parts of the same growth must be examined. The cancerous tissue must not be confounded with any of the remaining normal structure of the part in which the growth may have lodged itself.

When the two varieties of cancer cell exist in the same tumor they are to be regarded as similar cells, and are not to interfere with the idea of homology; for they are in reality the same, in so far as one is capable of passing into the other, and neither has any tendency to further development—that is, to form fibre, etc. One is the "simple cancer cell," and the other the "compound cancer cell." The simple cancer cell is often found alone; but the compound cancer cell is never found without the simple cancer cell being also

present. Strictly speaking, therefore, the simple cancer cell is, *par excellence*, the cancer cell.

The combined causes of cancer may be enumerated thus:—1st. Heredity as a cause. 2d. The blood as a cause. 3d. The nervous system as a cause. 4th. Injury as a cause. 5th. Accidental errors of cell development, followed by a kind of contagion by cell contact. 6th. A retrograde tendency to cell growth, in which the whole system and all the tissues partake, and which is manifested locally in the form of cancerous tumors, and constitutionally in the form of cachexia.

Dr. E. Krackowizer remarked as follows:

Knowing as I do the author as one of the most skilful and reliable microscopists of this country, and much inferior as I feel myself to be in this branch of medical science, I should never have undertaken to express an opinion on the memoir before us, had it not devolved on me by your direct summons, Mr. President. But I console and fortify myself with this belief, that one need not be a master to criticize the works of a master.

Before entering on the task, I will try to reproduce the leading ideas of the author as I understand them. If I have misunderstood him, it does not necessarily follow that he is right, although my arguments have been misdirected.

I understand the author to be in accord with all the modern writers in stating, that from the fructification of the germ formation and growth are the result of multiplication of pre-existing cells, branching off in different forms and assuming different relations. In this way different systems of tissues, and, by their combination, organs are formed, which being harmoniously arranged according to a certain type constitute what we call the normal human frame.

Ignoring, as is right, as not pertaining to the question at issue, the inflammatory process, he states that in such tissues and organs the physiological act of nutrition can become so misdirected, that cells are formed so abnormal in number, shape, and relations, that they constitute what we call a morbid growth, a tumor.

Heterology, Dr. Speir calls an error in the arrangement of the elements composing a tumor as *to a place or situation; homology*, as regards the *quantity* of elements in the structure. But the author does not stop here; he enlarges the definition of heterologous and homologous in a sense which is original with him in this—that he applies the terms heterology and homology to the condition of the elementary constituents of tumors, taken as not connected with their site, but with their individual, innermost structure.

To him in this sense *heterologous* is a tumor which contains cells and derivations of cells of *different* types: *homologous*, a tumor in which all elements are of *one* type.

I think the author would have been more easily understood by selecting for one kind the word "*compound*," and for the other the word "*uniform*." The idea of organization of course includes the idea of difference; but differentiation and heterology, if not by etymology certainly by usage, are not the same in our mode of thinking. Still this, in my view, unhappy choice of words does not vitiate the author's theory of classification of tumors, which he divides into *malignant* and *benign*, better called *non-malignant*.

As he claims to have detected a higher, unerring principle, by which to distinguish anatomically malignant from non-malignant growths, I accord to him the perfect right to ignore propositions from other sides. If he can maintain his ground, it is for him to establish the nomenclature of tumors, and for others to adopt it.

Making use of his thorough knowledge of embryology and of normal and pathological anatomy, the author lays down his leading ideas, which are somewhat obscured by ontological and teleological reveries, into which even very strong intellects, possessing highly imaginative powers and a brilliant style of writing, are sometimes drawn.

The essence of the author's idea is:—That the homogeneous, indifferent, embryoplastic cell is the only one from which all the varied cells of the perfect and staple structures are formed; that in the production of morbid growths there is a departure from this standard, by the cells producing either more elaborate or more simple specimens in the scale of cell development; that such cells acquire abnormal relations to each other or to the parts of the body in which they germinate, or to both; that the more different the individual cells in one morbid growth are to each other (heterologous in the new sense), and at the same time the more extraneous to the parts from which they develop (heterologous in the old sense), the more certain it is that the new growth is *not malignant*; that with this condition of the cells of a tumor which as a whole is more germane to the seat from which it springs (homologous in the old sense), the new growth is hardly ever malignant; that if all the cells composing a tumor are of one type (homologous in the new sense), yet, if the tumor springs from a tissue or organ having a structure not related to the elementary structure of the tumor itself (heterologous in the old sense), it is malignant; that if the type of the cells composing a tumor is uniform (homologous in the new sense) and related to the tissue or organ of its growth (homologous in the old sense), it is certainly malignant; that the uniformity (homology in the new sense) of the cells composing a tumor is the greater, the more the cells in the depending scale from the staple structures approach or coincide with the embryoplastic cell, and that such growths are never otherwise than malignant; that therefore the presence of the embryoplastic cell in a tumor stamps it with the indelible brand of malignity; that what authors describe as free nuclei in morbid growths are indeed embryoplastic cells; that from these embryoplastic cells of a tumor, to which cells of a higher type of a once normal tissue or organ have been degraded, are developed in the tumor itself, and at a subsequent period, the "simple cancer cell," and the "compound cancer cell" (mother cell); that this latter, although an unerring sign of the cancerous nature of a tumor, does not make it more malignant than the embryoplastic cell; that indeed its value, in the estimation of the nature of a tumor, is only so highly prized, because it speaks unmistakably even to those who are not so very well versed in the use of the microscope.

I believe these are the main theses of the author's theory. They are mere assertions, either fully erroneous, or partially true, if we should find that they are not in consonance with the facts.

To begin with, I hardly know that any such growths exist for which the author vindicates the quality of homogeneity (in his sense) except enchondroma and cholesteatoma of Johann Mueller and Virchow's Perlgeschwulst—pearly tumor. I think these two growths alone come up to the point of what he calls "homologous to its own cells." In enchondroma (and more particularly in its hyaline variety) there are none but cartilage cells in a structureless intercellular substance; in cholesteatoma there are only epithelial cells arranged in globes, embedded in alveoli, composed of epithelial cells, too, with no intercellular substance whatsoever.

All the other tumors in the author's own sense are heterologous as to their own elements. Even his en-

cephaloid tumor, which I take it comprises soft carcinoma and the round cell—sarcoma of the German authors—has its cells (very uniform in type indeed, and in the sarcoma, representing the most indifferent connective tissue cell) embedded in a more or less marked stroma of fibrillous or structureless connective tissue, and they are richly provided with arteries, lymphatics, perhaps with nerves, forming in fact a very complicated tissue—very heterologous in the author's sense.

Or does he claim that such adventitious elements as connective tissue, vessels, and so on, must be excluded from the consideration as accidentals, when there is no doubt that they are not merely remnants of the tissues once healthy in which the tumor developed, but that they are new formations, built up *pari passu* with the cells?

But let the author choose this ground, he cannot do it without weakening his position in another direction.

Exclude connective tissue, vessels, nerves, as not understood to be counted in when the question of heterology or homology in both senses is to be decided; is there anything more "homologous as to its own cells and to the mother tissue" than lipoma, originating in the adipose tissue, and composed of fat cells?

The same with *exostis*, *myoma* of the womb; again, take simple *hyperplasia* of the lymphatic glands, *leucomic enlargement* of the same (certainly not malignant in the author's sense), and *lymphoma* (hardly outranked for malignity in a clinical sense by any tumor); yet all three are homologous as to their own cells, and homologous to the tissue which is their seat.

Take, for example, *enchondroma*. It is certainly homologous "as to its own cells." You find it in the parotid gland, certainly heterologous "as to the other tissues." When you do find it malignant just in this region, while not very rarely developing in bony structures, it becomes malignant.

These examples might be multiplied, and the inconsistency and fallacy of the theory made more apparent.

In the examples just cited the histological character of tumors alone is considered. But the erroneousness of the author's theory becomes even more prominent when we criticise it from the histogenetic stand-point.

The author's paper, in several parts, gives evidence that he has not paid that very strict attention to the histogenesis of tumors which is so indispensable when the discussion refers to the primary starting-point of tumors.

I do not think that the "simple cancer cell," as described and delineated by him, is the return of a higher type of cells to the original type of the embryoplastic cell. His drawing gives to me the most decided impression that they are drawings of free nuclei, indeed never occurring free in the tumor while yet connected with the living body, but merely artificial, through the specimen losing its freshness, or by the use of an unsuitable menstruum under the microscope.

The author's theory, in that part in which it is original, is inconsistent, full of contradiction, and it does not advance us a single step in the better knowledge of morbid growths. It could result in nothing better, starting as it did from an entirely wrong principle.

The extensive knowledge and the great experience of the author have been misdirected in the futile attempt to call on the microscope for the solution of a problem, to do which the microscope should never be appealed to, because it cannot do it.

The question of malignity or non-malignity is one of clinical estimation entirely.

I would not that the student of morbid anatomy should ignore it, not because he is a student of morbid anatomy, but because no physician ought to be a student of morbid anatomy only.

In the practice of medicine as an art, even empiricism is perfectly legitimate, where science does not furnish any light. But at least so much we must do, that before a rationale has been found we have ever to keep before us, that our mode of explanation, and even our designations, are purely provisional. In this manner many very different objects may be grouped together with practical profit, only in their relation to a certain purpose to be attained.

But in the cultivation of medicine as a *science*, it is not permitted to depart from the method inexorably required by the study of physical and natural sciences, of which medicine only forms a branch.

When we see that with ever so many well-observed facts the way of *induction* rarely permits us more than to find the laws which govern the occurrences, but hardly ever to detect even the proximate causes; when we reflect that, even when it seems almost beyond doubt that we have detected a cause, it is quite the exception, that in the corroborative and controlling way of deduction the phenomena can be developed from its cause, I think we ought to be very careful in attempting too soon to establish theories from incomplete premises.

The ideas of malignity and non-malignity are transmitted to us from a time when of the more intimate structure of morbid growths, and the manner in which they originate, nothing was known; from a time in which the clinical stand-point was supreme in theory as well as in practice.

Pathologists have respected the latter claim, but, in investigating the structure and natural history of morbid growths, they became aware, not merely that they had to learn everything from the foundation, but that they had to clear away a good deal of rubbish of previous times, merely to come to an understanding among themselves what it was they wanted to accomplish by common work.

Of all this rubbish the old ideas of malignity and non-malignity still exert the most baleful dominion. They are entirely theological and inadmissible; they are to be cast aside mercilessly when it comes to writing the natural history of morbid growths. They are subordinate, one-sided ideas, and therefore not fit to establish the supreme principle by which to classify tumors. They are utilitarian, and as such foreign to the study of natural science.

We would deride botanists if they attempted to classify the vegetable kingdom into three large groups —nutritious, indifferent, and poisonous plants. We would scoff at zoologists if they classified the animal kingdom into domestic and wild animals. But without hesitation we waste our precious time and our best efforts to find out by the microscope whether a tumor is malignant or non-malignant, when all that is required and is possible at present is to decide how it is constituted, how it originates, how it exists, and how it differs from others.

With all the progress we have made in the study of tumors, what we have yet to learn will be better and quicker reached by tracing *histological differences* than by hunting after some common sign—call it cancer-cell or otherwise.

If no more division is possible, then what is common will be apparent, and the relative values of the common qualities will range themselves in natural orders. It may be that a never-wanting element of the minute structure, or a peculiar mode of development, will be found, which will give

rise to similar growths in other parts of the body. But so far we can only say that no specific cell or derivation of cell is the carrier or representative of the peculiarities just mentioned of some tumors; and yet the field as at present cultivated is full of promise.

I would feel happy to see the author bend his great talents and his great proficiency in microscopic investigation to the selection of this field, rather than that of barren theological speculation. It is worthy of his notice to study and to criticize, to refute if he can, why such eminent students as Virchow, Tiersch, Billroth, Luecke, Waldeyer, Recklinghausen, Klebs, Rindfleisch, Koester, and many more, retain the name "cancer" for a certain group of tumors, for which they vindicate an unmistakably epithelial character; it is worth his while to investigate whether epithelial cells of morbid growths are produced by pre-existing epithelial cells only, or whether connective tissue cells can assume that peculiar atactic energy to produce them; whether the well-known difference of the three layers of the germinative membrane of the ovum remains persistent through life (His, Aeby, Tiersch) in this, that the inner and outer layers can only produce epithelial (epidermic) structure in the way of repair of daily waste or in the way of abnormal growth, whereas from the middle layer are derived the connective tissue with the systems and organs derived from its transmutations, and *vice versâ* all the morbid growths which have no epithelial character; whether in epithelioma and carcinoma the first departure from the normal character is seen in the rete Malpighii, the follicles of the skin, the epithelium of the mucous membranes, its own glands and the other large glands which are derivatives of the inner layer of the germinative membrane, as Tiersch and others maintain; or whether the endothelium of the lymphatics is the primary seat of that morbid production of cells that finally constitutes cancer, as Koester has it; whether the newly-detected and well-studied qualities of some cells to migrate (first hinted at by Virchow, then demonstrated by Recklinghausen, Conheim, and others), is or is not the cause why tumors that seemingly are completely eradicated are followed by a reappearance near the field of operation; whether, when such cells or even larger particles of neoplasms (emboli) get into the lymphatics or veins, and when they are arrested in other parts of the circulatory system, they are able to retain their vitality, and consequently the ability to multiply and produce growths identical with the mother tissue.

These are the questions that at present occupy the best observers and thinkers, enlisted in furthering the knowledge about morbid growths.

That the author may range himself with them, and help to push the common work, is my sincere wish.

Solitary labor seldom builds something lasting; co-operation should not be eschewed by the best talents and by the most original minds, if the danger would be avoided of being led astray.

I have extended my remarks far beyond what I originally intended, and yet they are only crude and fragmentary. I must plead the extensiveness of the subject for an excuse, and more even the consideration that it would require one far better informed and far more acute in reasoning, to bring out the salient points in the author's memoir, as well as in the doctrine of tumors as it stands at present.

Prof. J. C. Dalton, after a careful reading of Dr. Speir's paper, was pleased with many parts of it, but thought that Dr. Krackowizer's objections were well founded. The microscopy of to-day he thought was very different from twenty years ago, when Velpeau then said to him that more could be gained by observation than by the microscope. This belief holds good now among many men.

In regard to the development of tumors, he believed that the term was used differently by the histologist and the surgeon. When the physiologist sees so many different classes of cells he wishes to ascertain where they belong; and while many points in cell growth have not yet been cleared up, Dr. Dalton thought that too little credit has been given to physiologists, as much has been discovered in the advancement of science. The cancer cell cannot be described in all its forms, but when we come to the nucleus—from $\frac{1}{12000}$th to $\frac{1}{2000}$th of an inch in diameter—it is marked. The cell may be large, small, and compound. The nucleus of an epithelial cell is not more than from $\frac{1}{3}$ to $\frac{1}{4}$ of the size of the cancer cell; and the fibroplastic cell is about $\frac{1}{4}$th of the size of the cancer cell; consequently, the epithelial and fibroplastic tumors must not be confounded with malignant tumors.

The speaker entered fully into cell-formation, and said, in concluding, that there was a nucleus of a ganglionic nerve cell which resembled cancer cell—whether it was a hypertrophy of the nerve he was not prepared to state. There was no resemblance to it in homologous tumors (in the old sense). At one time there was a tendency to develop cells out of other classes of cells, but he was glad that Dr. Speir had abrogated that plan.

Dr. A. N. Bell thought that no one could doubt that the author's paper was a capital one—establishing as it does the metamorphosis of one cancer cell. That cells are metamorphosed from one kind to another was clear to him—whether they were pathological or physiological. The author's paper he considered a valuable contribution, and on further investigation it was one which will attract attention.

REMARKS ON THE MEDICAL TREATMENT OF CANCER BY JOHN C. PETERS, M.D.

Mr. President and Fellows of the Academy:—I did not expect to be called upon to say anything to-night, and can add little or nothing to the able remarks of Drs. Krackowizer and Dalton on the cell question, except that I prefer their opinions, and those of Stricker, Billroth, Weter, Virchow, etc., to those of Dr. Speir.

I can also add but little to the surgical diagnosis or prognosis of tumors, but would like to say a few words upon their medical treatment as based upon the teachings of the microscope, and upon the modern cell doctrines.

We know that the development of many tumors is accompanied by considerable distension of vessels, and by new formation of cells and tissues. In the youngest parts of the new formation there are numerous fine vessels and networks of vessels; in the older parts, the vessels grow still wider, and then are thrombosed or destroyed, so that about points of softening in tumors similar networks of dilated vessels are formed as are developed in the formation of abscesses (Billroth).

Again, we know that in the formation of tumors we have an exudation or effusion of plasma from the enlarged and dilated capillaries.

Since the discoveries of Conheim and others, we know that lymphoid and other so-called indifferent cells pass through the walls of the capillaries, and that while the so-called emigrating and indifferent globules abound even in connective and other tissues, there is every probability that emigrant or wandering cells escaping from the capillaries very materially aid in the formation of tumors; while we are also almost

forced to admit that spralle cells, connective tissue corpuscles, and some others, may be formed by modifications of the lymphoid cells which have exuded through the capillaries.

Hence, in one respect, the principles of the treatment of some tumors, especially the soft, vascular, and rapidly growing and even medullary tumors, may be very positive and certain, although far from always successful. The first great therapeutical endeavor should be to compress and constringe the capillaries, and limit the outpouring of serum, plasma, myosine, and cells which so vigorously aid the growth of tumors. The ergot is a very likely remedy to accomplish this, and may have to be given in as large doses as the system will bear, aided perhaps by some other astringent tonic like the muriated tincture of iron, or even quinine, which it is well known prevents the exudation and emigration of white blood cells, lymph cells, etc.

The cannabis indica is almost as much of a contractor of the capillaries as the ergot, which prevents congestions and hemorrhages, while it allays pain and improves the digestion far more than any other anodyne. Tannin and cannabis indica is a good combination, and gallic acid is often useful; with them and the above remedies fungous and even medullary growths may be kept somewhat in check at least.

Again, we should bear in mind that the major part of the so-called malignant growths are not poisonous, but merely destructive, and that much of their component parts may be safely reabsorbed; the tissues are often infiltrated with simple serum, or permeated with young, fresh, and harmless cells. The bromides and iodides of potash may come in play here, and often accomplish more than we would be apt to dream of; for I am sure that I have seen formidable myo-fibroid tumors of the ovaries and uterus disappear under the long-continued, conjoined, and alternate use (say for two or three years) of bromide of potash and cannabis indica.

We regard tumors and cancer as having a local origin, but if we prefer to take the constitutional method as our guide we may follow the experience of Thomas Weeden Cooke, of the London Cancer Hospital. He says, "It is obvious (?) that all our remedial efforts should be directed to get at the back of the tumor, as it were, by so improving the quality of the blood that it shall no longer create (?) imperfectly developed cells. The supply being thus cut off, the tumor becomes an overt body, the fluid part of which is absorbed and ejected as effete matter. As this goes on the solid skeleton of the tumor contracts, forming that condition known as atropyic cancer." He has found arsenic useless; iron quite useful; conium useless, and more apt to produce stomach derangement and headache than any other sedative. Iodine useless, also ammonia and soda. He speaks in the highest terms of galium aparine, or cliva grass, which he has seen used for years, and keeping cancer in abeyance all that time. The preparations of gold and manganese are useless. The mineral acids deserve far more favorable notice than they have received, and he thinks there are few cases of cancer which will not be benefited by them, giving the preference to the phosphoric and hydrochloric, especially when combined with the compound tincture of bark, or orange peel. They may be continued for a long time, and often afford the most remarkable results.

Cod-liver oil, administered in the occult stage of scirrhus of the heart, he thinks has approached more nearly the character of a specific than any other agent, possibly by favoring normal fatty degeneration of the morbid parts and cells.

Among the local applications Cooke says the liquor plumbi certainly has an influence, doubtless by constringing the vessels and preventing congestion and cell-growth. An ounce of liquor plumbi to a pint of water, applied by means of two layers of lint, covered in with oiled silk; it is generally grateful to the patient, and undoubtedly relieves the pain. In winter it is more desirable to cover the tumor with a leather plaster, composed of equal parts of emp. plumbi, emplast. saponis, and emp. adhæsivum in equal proportions.

Of all the local anæsthetics he has derived most benefit from belladonna, ʒ ij. of the ext. to ʒ vj. of cera saponis; or three grains of atropine to ʒ j. of zinc ointment.

We have seen ulcerated scirrhus heal entirely under the influence of a lotion containing eight grains of chlorate of potash to two minims of strong hydrochloric acid in one ounce of distilled water. This same lotion is the best deodorizer; oxide of zinc and glycerine is a useful application, as is two grains of chloride of zinc to ʒ j. of water. For the removal of slough, a combination of manganate and permanganate of potassa is best; it does not generally cause much pain, and the whole slough is often turned out after the first application. To control hemorrhage a small piece of lint soaked in the tincture of the sesquichloride of iron, slightly pressed upon the bleeding point, will almost invariably effect the desired end.

Adenoid and fibrous tumors of the breast may generally be dispersed by treatment.

Dr. Burrall remarked that Dr. Peters had spoken of the treatment of cancer. Now, we know that the most satisfactory and scientific method of treating any disease is first to discover the nature of it, and then apply those remedies which would seem to meet the necessities of the case. At the same time it must be remembered that our knowledge of some valued remedies now in use, has been obtained by accident or empirically. A treatment of symptoms leads us to a knowledge of disease by watching the effect which medicines produce. Of course the microscope is a valuable aid in the study of morbid processes.

Two prominent features of cancer, as it is usually observed, are, a process characterized by the formation of cells which do not develop into healthy tissue but tend to destroy it, and we also find an impoverished condition of the blood, shown more decidedly as the disease progresses. Theoretically, therefore, the indications would seem to be, to limit cell-growth and strengthen the system.

Remedies which would meet such indications may be classed under a TONIC ANTISEPTIC head, the essential nature of tonics and antiseptics being, in accordance with the studies of modern investigators, to retard tissue metamorphosis or retrograde cell-growth.

It is a great gain in treatment to know that cancer does not require diminished diet or depletion, but full support. And at the same time an examination of the remedies which are now most trusted in the treatment of cancer shows them to be those which are believed to retard cell changes.

Arsenic, which is a powerful antiseptic, is still regarded with favor by many intelligent physicians, and so are remedies which contain chlorine and bromine, as chlorate of potash, hydrochloric acid, and bromide of potassium. There are other antiseptics in the same category.

At the same time there are local applications which coagulate albumen and which may be reasonably supposed to interfere with cell changes, either by actual cell destruction, which process may be observed under the microscope, or by interfering with the free passage of plasma to the cell. Such are chloride of zinc, tannin, and carbolic acid.

It is said of carbolic acid that it is in high repute with its friends, which implies that its enemies have not very much to say in its favor. There have been, however, some cases of cancerous disease in which the use of this remedy has been accompanied with decided improvement, and at the meeting of the International Medical Association held last year in Florence, Parenta called attention to the use of this remedy in cancer. That it has no effect in some cases would corroborate the statement in Dr. Speir's valuable paper that some forms of the disease are amenable to remedies and some are not.

We have no remedy which can be called a cure for cancer, yet the progress of certain forms of the disease can be retarded, pain lessened, and fœtor diminished. Dr. Barrall has had two cases of scirrhus, one after operation and one in which no operation had been performed, in which cicatrization occurred during treatment. In both ulceration subsequently ensued, yet the disease seemed to have been modified by the treatment. These patients are both in tolerable health at present. The treatment consisted mainly in the use of a mixture of carbolic acid and sulphate of quinine internally with the external use of a watery solution of carbolic acid and glycerine. This treatment seems of use in scirrhus, but of doubtful value in encephalon. The tincture of the muriate of iron is a useful remedy, and the external use of the liquor ferri persulphatis seems not only to check hemorrhage but to improve the appearance of a cancerous ulcer.

Cases of cancer present themselves in which, from the unwillingness of the patient or the unfavorable nature of the disease, an operation is impracticable.

The course of such cases can sometimes be favorably modified by treatment. Where a part, as the breast, is removed, the removal should be considered as only one step in the treatment, and be accompanied by the use of hygienic and remedial measures, and a subsequent watch of the patient when this is practicable. The fact that we have no cure for cancer, as that expression is usually understood, should not discourage us from the use of remedies which afford even slight relief.

Dr. B. S. Thompson, in confirmation of Prof. Dalton's remark with reference to microscopy twenty years ago, and its abrogation by some noted men at the present day, alluded to the views of Dr. Stokes, uttered at a recent meeting of the Pathological Society of Dublin, when he said that we have no scientific means of detecting any characteristic, microscopical or chemical, of cancer.

The successful treatment of cancer by caustic arrows and carbolic acid, in conjunction and separately, as noted especially by Dr. J. R. Wolfe, Ophthalmic Surgeon to the Aberdeen Royal Infirmary, and by Dr. Burrall of this city, was referred to; and, in conclusion, two plates of unique tumors, with description, were exhibited—one being a congenital tumor (osteo-sarcoma probably) in a child, three years old, measuring twenty inches in circumference; the other a fatty tumor, with a bone-like degeneration, hanging from the left inguinal region of a Canadian lumberman, weighing before removal about six pounds, and measuring sixteen inches in circumference, seven and a half inches in diameter, and eleven and a half inches from its point of attachment to its pendant extremity.

The President, before calling upon the author of the paper for the closing remarks, stated that the term *destructive* was a better term than malignant, in its application to a class of tumors.

Dr. Speir, adhering to his ideas advanced in his paper, referred to the removal of an epithelioma from the lip, which was homologous and heterologous in its nature, by the solid stick of the nitrate of silver and powdered sulphate of zinc; and a second case, which was malignant (heterologous and homologous), was extirpated, as local applications would not answer. In the latter case the epithelioma was developed from tissues outside of the natural place.

He regards his classification of tumors as a good one, and does not believe in the cell-development of Virchow. The only way that a malignant cell can be propagated is by contact. He was astonished when some state that we must fall back on clinical experience, with reference to the diagnosis of tumors.

In closing the discussion, the author said that his drawings were faithfully made, after a microscopical experience of ten years, and not always alone. As Dr. Burrall had remarked, we must find out what the tumor is, and bring into play the microscope, as we cannot yet fall back on chemistry for assistance in the diagnosis.

Dr. W. C. Roberts had supposed that more time was to have been allowed for the discussion, but as the hour was so late he would not offer any further remarks.

The President announced that the next paper would be read May 18th, by Dr. Gurdon Buck, on "The Treatment of Cicatrix and Contraction from Burns."

On motion the Academy adjourned.

Correspondence.

PULMONARY PHTHISIS AND ITS CURABILITY.

To the Editor of the Medical Record.

Sir:—In a previous issue, and under the above title, I read a letter from C. Both, M.D., of Boston, in which this gentleman seems to complain bitterly that he has published in your estimable journal "four articles upon tuberculosis, which, although original and varying absolutely from the opinions then held by the profession, did not create any comments or criticisms." I will not, Mr. Editor, encroach too much on your valuable paper in commenting on the four articles in question, and which have probably been lost sight of by your readers. They treat of questions which are exposed at length by Stahl, Rush, Fuller, Carmichael Smith, Toussagrives, and many others, but I feel it my duty to protest, in the name of those whom it concerns, against the following *original* idea of your correspondent, that "*the artificial calcification of both primary and secondary tubercles (embolism) are advances which stand as yet unsupported by any one except myself.*" Let me call his attention to Grisolle, "*Traité de Pathologie Interne*," last edition, pages 491 and 521; Clymer's edition of Aitken's "*Science and Practice of Medicine*," vol. II, page 222, or Herard & Cornil, "*de la Phthisie Pulmonaire*," page 165, and many others, also to the following paragraph of a paper published by myself* in the "Medical Gazette," July 2, 1870, that

"Phosphate of lime is found in every organized body, either animal or vegetable, except when in a process of disorganization; its use, therefore, is indicated whenever there is any animal disorganization in fractures, rachitism, or osteo-malacia as well as in tuberculosis, for we know that one of the processes followed by nature in the cure of tuberculosis is the concretion of the tubercle. When in autopsies we find calcified tubercle in subjects dead from some other disease, these concretions are always found to contain phosphate of lime in excess, whilst, on the contrary, when we exam-

* Treatment of Phthisis, a paper read before the Yonkers Medical Association, June 3, 1870.

ine crude tubercles or soft ones, we find that they do not contain any or very little phosphates."

We would also refer your correspondent to a paper by Dr. Dusart, *Du Lacto-Phosphate de Chaux*, in "*Archives de Medicine*" for October, 1869, and also a paper by Dr. Sandras in *Abeille Medicale*, 21 Mars, 1864.

We hope the above data (which could be much more extended) will be sufficient to show Dr. B. that although the idea of calcification may have originated in his own mind, it has nevertheless been known and advocated for a long time by a host of others.

Yours very respectfully,

P. De Marmon, M.D.

Kingsbridge, N. Y., June, 1871.

THE RANK OF HOSPITAL STEWARDS IN THE ARMY.

To the Editor of the Medical Record.

Sir:—The article in The Record of April 15th, 1871, on the "Naval Staff Controversy," suggests the propriety of claiming your indulgence on a somewhat similar matter. I refer to the position of hospital stewards in the U. S. Army.

To be brief, hospital stewards are required to possess a sufficient knowledge of pharmacy to prepare all medicines required for the use of sick officers and soldiers, and their families; to be fair clerks; to possess sufficient executive ability to manage the different parts of a hospital; to be intelligent and to be trustworthy, as they have the control sometimes of government property and stores amounting to hundreds of thousands of dollars.

They are required before appointment to pass an examination, and for their instruction a book called the "Hospital Steward's Manual" is issued, conditions not required in the case of any other enlisted men. Yet the hospital steward is only an "enlisted man."

Many hospital stewards possess good practical and even classical education, yet no distinction is made by officers in the treatment of hospital stewards and soldiers; and I believe I am perfectly truthful in saying that hospital stewards hold a lower position in the U. S. Army than the incumbents of a similar grade in any other civilized service.

The Prussian military service is proverbial for its economy, yet there the "apothecary" ranks with the surgeon. Of course he is thoroughly educated. Very well. "What is worth doing at all is worth doing well," is an axiom of acknowledged soundness; therefore, if the government desires the services of apothecaries, let it have skilful ones, and treat them accordingly. An ignorant, stupid fellow cannot perform the duties of a hospital steward, and an intelligent and capable one cannot fail to lose his self-respect by the treatment accorded him as an "enlisted man."

Strenuous efforts were made by the hospital stewards of the army during two sessions of Congress, in 1862 and 1863, to have their rank raised to *Brevet*-Second Lieutenants, without avail, though we had the support of many eminent members of the medical profession and others.

"The laborer is worthy of his hire," and every human being has a right to look for reward and promotion for services faithfully rendered; but there is neither reward nor promotion for the hospital steward: if he has performed his duty faithfully for forty years, at the end of the forty years he is still a hospital steward.

Why not give us a position consistent with self-respect? We do not ask to rank with medical officers, nor do we ask for increase of pay; we only desire such a position as will raise us above the grade of "enlisted men," and enable us to receive the treatment from officers and civilians to which our abilities entitle us.

Very respectfully, yours,

Theo. V. Brown,
Hospl. Stew'd U. S. A.

Camp Halleck, Nevada, May, 1871.

A SUGGESTION TO THE HEALTH BOARD.

To the Editor of the Medical Record.

Sir:—It has occurred to me that our Health Board might confer an especial favor upon the profession, by issuing their "certificates of death" in the same style as the "registry of birth" adopted by their predecessors in office. But little more time would be required to make the entries upon the accompanying *coupons*, and the physician could then have a record for future reference. I have often felt the need of some such device as that above suggested as an aid to the memory, and think that in view of the many "forms" now wasted, it would be a real economy on the part of our city authorities to make the experiment.

Yours, etc.,

R.

New York, May 10, 1871.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department of the United States Army, from May 19, 1871, to June 4, 1871, inclusive.

Cooper, Geo. E., Surgeon and Medical Director.—By S. O. 61, Headquarters Dept. of the Columbia, May 6, 1871, to inspect the affairs of the Medical Department and sanitary condition at Fort Hall, Idaho Territory; and upon completion of this duty, rejoin his proper station.

Campbell, Jno., Surgeon.—By S. O. 109, Headquarters Dept. of Dakota, May 19, 1871, granted leave of absence for 30 days, with permission to apply for an extension of 40 days; to take effect when relieved by another medical officer.

Ghiselin, J. T., Surgeon.—By S. O. 112, Headquarters Dept. of the East, May 31, 1871, granted leave of absence for 30 days.

Bill, J. H., Surgeon.—By S. O. 61, C. S., Headquarters Dept. of the Columbia, to take charge of office of Medical Director, and perform duties of Attending Surgeon during Dr. Cooper's absence.

Town, F. L., Surgeon.—By S. O. 202, Headquarters of the Army, A. G. O., May 23, 1871, granted leave of absence for three months.

Sternberg, G. W., Asst. Surgeon.—By S. O. 110, Headquarters Dept. of the East, May 26, 1871, assigned to temporary duty at Fort Adams, R. I., during absence of Assistant Surgeon Waters, U.S.A., and on return of Dr. Waters to rejoin his proper station, Fort Hamilton, N. Y. H.

Hartsuff, A., Asst. Surgeon.—By par. 1, S. O. 49, Headquarters Dept. of the Lakes, May 20, 1871, assigned to duty as Attending Surgeon and Examining Surgeon of recruits at Detroit, Mich.; and by par. 2, same order, granted leave of absence for 30 days, with permission to apply for an extension of two months.

Woodhull, Alfred A., Asst. Surgeon.—By S. O. 36, Headquarters Mil. Div. of the Mo., May 22, 1871, granted an extension of his leave of absence for 30 days.

McElderry, H., Asst. Surgeon.—By S. O. 100, Headquarters Dept. of Texas, May 20, 1871, relieved at Fort McIntosh, Tex., and to report in person to the Medical Director at San Antonio, Tex.

Mackin, Chas., Asst. Surgeon.—By S. O. 87, Headquarters Dept. of the Platte, May 22, 1871, assigned to duty with troops on the Republican River.

Meacham, Frank, Asst. Surgeon.—By S. O. 92, Headquarters Dept. of the Platte, May 27, 1871, granted leave of absence for 30 days.

DeWitt, Calvin, Asst. Surgeon.—By S. O. 22, Headquarters Dept. of Arizona, March 15, 1871, assigned to duty at Fort Whipple, A. T. (April 30th, Camp McDowell, A. T.), awaiting transportation.

Girard, Jos. B., Asst. Surgeon.—By S. O. 210, War Dept., A. G. O., May 31, 1871, relieved from duty in the Dept. of the Platte, and granted leave of absence for four months, with permission to go beyond the sea.

Nilson, A. D., Asst. Surgeon.—By S. O. 90, Headquarters Dept. of the Platte, May 25, 1871, assigned to temporary duty at Camp Douglas, U. T.

Medical Items and News.

Cholera at St. Petersburg.—The cholera has appeared at St. Petersburg in a very virulent form, and its ravages are not confined to the lower classes. The correspondent of the London *Standard* writes, that the nature of the food used during Lent is pointed out as being a very probable cause of the increase of the disease.—*British Medical Journal.*

The American Ambulance.—Dr. Herbert Cooper, of Wootton Bassett, Wilts, writes, in the *British Medical Journal*, as follows, in regard to the advantages of the American system of ambulance in the late Franco-Prussian war. In the Ambulance de la Plaine des Manœuvres, built after the American system, and situated about two miles out of Brussels, he saw many cases of compound comminuted fractures of thighs, legs, and arms, the results of injuries from rifle-bullets and pieces of shell, and for the most part of a healthy appearance. The dressing consisted principally in the application of lemon-juice. The death-rate varied considerably. In the ambulance inside the town, situated in Rue du Progrès, forty were lost out of three hundred and fifty wounded. In the American ambulance outside the town, ten only died out of three hundred and fifty wounded.

The American system of ambulance, he says, has proved by far the best in every way.

According to the *Presse Médicale Belge* for March 26, there were in Paris 10,000 wounded treated in 700 ambulances. The statistics of these ambulances amply exhibit the fact, so easily demonstrated at Brussels, of the great superiority of the "American" system. Thus, we may compare the ambulance under the direction of Nélaton, at the Grand Hôtel, with the American ambulance established in the Avenue Ulrich, which, as regards the number of wounded, were of equal importance. At the Grand Hôtel not a single subject of amputation was saved; while, in the American ambulance, two only in ten were lost in the worst cases. In the former the mortality was 80 per cent.; and in the latter, at first, only 4·70 per cent. After the "*affaire du Bourget*," the wounded suffered from cold, and greatly from bad diet, and then the mean mortality mounted up to 13 per cent. As the siege became more and more distressing, the sick felt its effects in an increased degree, and the mortality attained its maximum of 20 per cent. Thus, between these two ambulances, there was the enormous difference of 75 per cent. This difference was chiefly attributable to the differences in the hygienic conditions of the two establishments. The ventilation was excellent in the American ambulance, while in the rooms of the Grand Hôtel it was quite insufficient. Moreover, there the great imprudence had been committed of leaving the carpets and curtains, and hospital gangrene furnished a large contingent to the mortality.—*Medical Times and Gazette*, April 8, '71.

Enormous Tumor of the Scrotum.—Mr. Bickersteth, of the Liverpool Royal Infirmary, recently removed a solid fibro-cellular tumor of the scrotum, of extraordinary magnitude, its estimated weight being about thirty pounds. The patient, a tailor, 49 years old, first noticed its appearance 19 years before, in the form of a small, hard lump of the size of a horse-bean.—*British Medical Journal.*

Chloral Hydrate.—Several cases of nocturnal incontinence of urine and semen, successfully treated with chloral hydrate, have recently been reported, and a correspondent of the *British Medical Journal* recommends a trial of this remedy in epilepsy, on the ground of its known power in controlling spasm. In a recent number of the *Edinburgh Medical Journal* there is reported a case of epilepsy in which the paroxysms occurred, sometimes, as frequently as several in a day. The administration of chloral hydrate was commenced in Feb. 1870, and between that time and the following May she had nine fits. From May to January last she had but three.

Combustion of the Dead.—In a late number of the *Presse Medicale Belge* appears a letter from Sedan, dated March 19th, in which the combustion of the bodies, as conducted by the Commissioners of the Belgian government, is described. They employed very simple measures for preventing any ill effects from the deleterious miasmata that might arise when the heat became great. The pits having been opened and the bodies uncovered without deranging them, tar was poured in in proportion to the number of bodies buried, so as to cover them with a very thick layer of this liquid. When this had infiltrated in every direction, petroleum oil was poured over the bodies and set on fire, the flames being rendered more intense by larch wood. They spread in every direction, penetrating even to the bottom of the pits, so that at the end of three hours nothing remained of the bodies but the bones in a state of complete reduction. While all this was going on, fumes of chlorine were abundantly disengaged, and the workmen declared that they did not perceive the slightest cadaveric odor.

After the calcination of the bodies, a solid layer of dried tar had formed over the pits, which was quite capable of preventing any exhalations; but in addition to this, dry chloride of lime was thrown into the pits, and they were filled up with earth and lime so as to form very good *tumuli*. According to the commissioners, with the exception of those which had been conducted under the *surveillance* of the French authorities, the interments had been made in the most detestable manner, pits containing 160 bodies having been covered with only 10 centimetres of earth.—*Med. Times & Gazette.*

Dr. R. P. Lincoln's article, "Aneurism of the Arch of the Aorta treated by Electrolysis," published in the Record for May 15th, contains errors which are too important to be overlooked. In the first place the initials of the writer are not correct. Dr. "Stevens'" name first appears as "Stearns." On page 128, first column, fifth line, "pulsative" appears for "pulsating," and in the eighteenth line the final "m" of "manubrium" is omitted. In the twenty-seventh line the

article "the" should have preceded "respiratory." In the second column, fifteenth line, "being" should have preceded "withheld." In the thirty-first line "was given" should have read "were given;" and in the thirty-seventh line there should have been an "and" before "the current."

German Hospital, N. Y.—Seven hundred and forty patients were treated in this hospital, of whom 330 were paupers. The capital of the institution amounts to $42,800, the interest of which, together with nine subscriptions, yields an annual revenue of $5,790. The receipts during the past year, inclusive of a balance of $1,547 last year, amounted to $40,740.51. The expenses were $40,585.60, leaving $154.91 in the hands of the treasurer. Drs. Krackowizer, Jacobi, and Zinsser are members of the board of directors, as well as attending physicians and surgeons. The *House Physicians* appointed during the past year are Drs. Frank and Tyndale.

Out of 740 patients treated at the Hospital during the year, 429 were cured, 119 were relieved, and 88 died. The percentage of the cured is 66⅔; of deaths, 7½.

Manhattan Eye and Ear Hospital.—From the First Annual Report of the Board of Directors the following facts are gleaned. The temporary building located at No. 233 East Thirty-fourth street, has thirteen beds for such cases as require surgical operations, or other in-door treatment; besides a daily clinic is held there. Its income has been derived entirely from the gifts of one hundred and twenty benefactors; these amount to $26,839.35. An elegant site has been secured for a permanent building on the south-east corner of Park avenue and Forty-first street.

The Medical and Surgical Staff is composed of Drs. C. R. Agnew, E. G. Loring, and D. B. St. John Roosa, assisted by Drs. P. D. Pomeroy, C. J. Pardee, F. R. Sturgis, and C. S. Bull. Dr. Edward Curtis, *Microscopist*. The present house surgeon is Dr. D. R. Ambrose. From Oct. 15th, 1869, to Dec. 31st, 1870, 1,717 cases of diseases of the Eye and Ear were treated. Number of surgical operations, 294.

Statistics of Rhode Island. — The Rhode Island Seventeenth Registration Report for 1869, prepared by Dr. Edward T. Caswell, of Providence, gives the following particulars: There were 5,245 births—males, 2,685, females, 2,560—in a population of 217,319, of which 2,355 were of foreign birth. The marriages numbered 2,289. The deaths amounted to 3,382, of which 1,696 were males, and 1,686 females. The average age of all was 30.25; the male average 28.62, and the female 31.29. Consumption carried off 549; apoplexy, 69; cholera infantum, 151; convulsions, 71; dysentery, 74; croup, 41; cancer (various), 66; typhoid fever, 101; diseases of the heart, 128; hooping-cough, 48; hydrocephalus, 76; marasmus, 42; old age, 217; paralysis, 48; pneumonia, 168; scarlatina, 286; suicides, 15. Of the deaths, the average age of agriculturists was 66.05; of mechanics and artisans, 51.34; of laborers, 50.08; of business men, 47.37; of professional men, 51.37; of seafaring men, 50.00; of soldiers, 34.00; and females, 32.87. There were 48 cases of plurality births; of these, 22 were in the city of Providence, with a population of 68,870. Of these 48 cases, 21 were of American and 15 of Irish parentage. The number of still-born children was 220. Of 185 applications for divorce, 162 were granted, showing one divorce to every 14 marriages. In Connecticut, in 1867, it was even more appalling—one divorce to every 10.4 marriages.

Dr. Caswell remarks that cholera infantum was more fatal among children of American than those of foreign parentage. The deaths from consumption were 37 more than in 1868, and 10 less than in 1867. The majority of these deaths was among women, and among those of American parentage.

The Climate of Knoxville, Tenn.—Dr. F. K. Bailey, of Knoxville, Tenn. (*Chicago Med. Examiner*), in answer to inquiries made upon this subject, says that many asthmatical patients, from Maine to Ohio, come to that section of East Tennessee, and after a residence of one or two years are materially benefited. To sufferers from malarial diseases, in whatever region of our common country they may reside, it may be said with certainty the equable mountain air will prove a cure. Of this he speaks with assurance, from its influence upon his own health and the assertions of others.

Fibroid Growths.—Dr. Thorburn, of the Manchester Southern Hospital for Women and Children (*British Medical Journal*), has no faith in the efficacy of any internal remedy to diminish the actual bulk of a fibroid growth. Where sudden increase, however, takes place, he finds that the iodide of potassium—especially in conjunction with ergot—has a powerful influence in restoring the *status quo*. The same is the case with Kreuznach water, and the result would appear to be due to the diminution of intercurrent congestion.

A New Remedy for Cancer.—Hon. Hamilton Fish, Secretary of State, has received from Mr. Flores, the Washington minister of the republic of Ecuador, a sample of the vegetable called "cundurango," recently discovered in that country, which is extolled by Doctors Casares, Equiguren, and others of Quito, as an efficient remedy for cancer and other kindred diseases. E. Rumsey Wing, Secretary of Legation at Quito, Ecuador, writes that, from information given him by these distinguished gentlemen, he is more than ever convinced of the great value of the discovery, and the necessity for immediate scientific experiments with the wood.

Dr. J. G. Adams delivered an interesting address upon the Life and Character of Dr. Alexander H. Stevens, before the N. Y. Academy of Medicine, May 25, 1871. At the conclusion of the address he presented an excellent portrait of the deceased to the College of Physicians and Surgeons of N. Y.

Ruloff's Brain.—The brain of Ruloff the murderer weighed fifty-nine ounces. His skull averaged half an inch in thickness.

M. Longet, the distinguished physiologist, died at Bordeaux, France, in May, aged 68.

New Publications.

Books Received.

A Treatise on Diseases of the Nervous System, by W. A. Hammond, M.D., Prof. of Diseases of the Mind and Nervous System and of Clinical Medicine, in the Bellevue Hospital Medical College, N. Y., etc., etc. New York: D. Appleton & Co. 1871.

A Practical Treatise on the Diseases of Infancy and Childhood, by Thomas Hawkes Tanner, M.D., F.L.S., etc. Third American Edition. Revised and Enlarged by Alfred Meadows, M.D., London, etc. Philadelphia: Lindsay & Blakiston. 1871.

Report of Inspectors of State Prisons for 1871.

Paralysis and other Affections of the Nerves, their Cure by Vibratory and Special Movements. By Geo. H. Taylor, M.D. New York: S. R. Wells. 1871.

Original Lectures.

VARIABILITY IN THE TYPES OF DISEASES:

REMARKS BEFORE THE MEDICAL LIBRARY AND JOURNAL ASSOCIATION OF NEW YORK.

By J. C. NOTT, M.D.,

NEW YORK.

Part I.

The subject of which I propose to treat is far too wide for the limits of a lecture, as it opens the whole field of epidemic and endemic influences, in addition to the vexed question of *bloodletting*, which has lately been exciting much interest in this city.

I have been more than forty years in the profession —have had an opportunity of seeing the diseases of New York and Philadelphia during six years—practised about the same length of time in my native State, South Carolina—then passed about thirty years in Mobile and New Orleans previously to my removal to New York. This varied life, through a long series of years, enables me to speak as an eye-witness of things which have not been written, and which may afford some material for thought to the younger members of the profession. I shall not encumber my remarks with the literature of the subject, but confine myself mainly to my own reflections and reminiscences.

Every age has its fashions, its follies, and its vagaries, and we have no reason to hope that posterity will not criticise us as harshly as we are now criticising our predecessors. While kicking out from our halls of science the pathology and therapeutics of our forefathers, it remains to be seen whether we are as wise as we seem, and whether we are not now in one of those transition stages so often seen in our profession, passing from one extreme to the other. There may be a *juste milieu* to which sober second thought will bring the next generation.

What a change has come over us in the last half century! When we look back upon the abuse of bloodletting, purgatives, mercury, tartar emetic, diet, &c., even through the brief period of my recollection, is it not enough to make one doubt human sanity? Look over the writings of Sydenham, Rush, the Edinburgh school, of Robert Jackson, Sir James Johnson, Cleghorn, Hillary, Lind, Bamfield, Wardrop, Lawrence, Marshall Hall, and other luminaries of their day, and compare their teachings with those of Hughes Bennett, Todd, Chambers, and other teachers of our day!

When we thus see hundreds of educated, intelligent, painstaking, conscientious men in the same places, or in similar climates, at intervals of time so little removed from each other, teaching such different doctrines, both as to the nature and treatment of diseases, we are forced to ask the question, *Has there not been some great change in the nature of mankind, or in the types of diseases, which may reconcile these conflicting opinions?*

The question of *permanence* of types of diseases has caused much discussion, and is surrounded by great difficulties. While it is admitted on all hands that idiopathic fevers do assume different forms and grades in different times and places, it is contended by Bennett and his school that *inflammation* never changes character, and must always be treated on the same principles. Even if we admit that inflammation is a unit, when once established, it is by no means proven that bloodletting and other antiphlogistic remedies are in many cases of no value in moderating and arresting its onward course—its further development—before it has done its worst.

The antiphlogistic treatment half a century ago was certainly pushed to an unwarrantable extreme; but, on the other hand, are we justifiable in proscribing antiphlogistics *in toto?* The statistics of hospitals, where patients are placed under the depressing influence of vitiated air, bad diet, &c., are not always satisfactory guides for the private practitioner. Many cases demand stimulants in hospitals that would not in clean, well-ventilated private houses; and many cases that would *tolerate* large depletion in private practice, would succumb under it in hospitals. This was demonstrated on a large scale during our late civil war. In military hospitals, North and South, alcohol was the leading remedy in all affections, whether medical or surgical. A very large portion, to say the least, of such affections, in private life, might have been as well or better treated without stimulants.

I will merely remark in passing, that if the unity of the human race be admitted, the negro affords a curious example of change in the type of man from climatic influences. If Hughes Bennett had to treat negroes, he would soon learn two facts—First, That inflammation (pneumonia for example) cannot be treated in the negro as in the white man. Second, That negroes enjoy almost entire exemption from certain diseases to which the white race is very susceptible. This fact of different constitutions in the blacks, compared with the whites, opens a curious field in connection with epidemic "constitutions" of the atmosphere, which I must pass over without comment.

It would be a bold assertion to say that any man of the present day is a more faithful and competent observer of disease than was Sydenham, who perhaps thought more and wrote more on the *types of diseases*, and the influence of atmospheric causes, than any of his contemporaries.

The following maxims of his are well worthy of being remembered:—

"In the first place," he says, "it is necessary to reduce all diseases to *precise* and *determined species*, with the same care and the same exactness that the botanists have displayed in their treatises on plants. In the second place, whoever desires to give a history of a disease should renounce every philosophic system, and every hypothesis, and mark exactly the smallest morbid phenomena which are clear and natural; imitating thus the painters, who in their portraits have great care to express even the slightest marks of the persons whom they desire to represent. In the third place, it is necessary in the description of a disease to expose separately the proper or essential, and the accidental and foreign symptoms. In fine, the seasons that favor most each order of symptoms must be carefully marked. These are not the only things necessary to observe in writing the history of diseases, but they are the principal."

After having studied for fifteen years with admirable patience the *influence of epidemic constitutions*, he thought he could emit on that subject the following theory:—"There are various *constitutions* of the year, which come neither from heat, cold, drouth, nor humidity, but rather from a concealed and inexplicable alteration which occurs in the bowels of the earth. Then the air is found affected with pernicious exhalations, which cause special diseases, as long as the same constitution is predominant. In fine, *at the end of a few years*, this constitution ceases, and gives place to another. Each general constitution produces a fever which is proper to it, and which, outside of that, never

appears. For this reason I call these sorts of fevers *stationary* or fixed."

Renouard, in his "History of Medicine," says: "The stationary is embraced *in a certain number of years;* it gradually increases until it attains its height, then it declines, giving place to another stationary, which succeeds it. Do these same stationaries return in a fixed and certain order, after a certain number of years? Are they limited in number? or do they *sometimes produce new ones?* These questions cannot be determined, on account of the absence of observations made during a long course of years by skilful physicians in one locality, and compared with similar observations made by others. Thus we are ignorant, up to this time, of the number, nature, extent, and period of stationary fevers. Solely it is established, after the observations of Sydenham, and my own, that a stationary fever extends its influence on all absolutely febrile diseases, and that it controls them, whether they are independent of the changes of the season or proceed from any isolated cause. *It is no less certain that the stationary fever exercises a great influence on chronic diseases, whether febrile or not.*"

There are, I imagine, few men of experience in our profession that will not indorse to some extent the above opinions of Sydenham and Renouard. Seasons, climates, epidemic and endemic influences make their impress on all intercurrent diseases, and the main dispute would be as to the *length of time* that such influences might last.

The problem is a perplexing one, and constantly made more difficult by the multiplication of disturbing causes. Besides the causes just enumerated, may be mentioned changes in the physical condition of countries from felling forests, drainage, increase of towns and population, changes in food, customs, the more rapid and enlarged communication in wars and commerce, the frequent introduction of new diseases from one country into another, the increase of manufactures, etc.

Epidemic and contagious diseases are almost invariably asthenic in character; and the more dense the population the more rapid is the intercourse and the greater are the chances for the introduction of diseases of other countries.

Small-pox was unknown in Europe for many centuries after the Christian era, though common in China long before. Scarlet-fever is of still later date in Europe, and was so rare in the United States that Dr. Rush, about the beginning of the present century, makes the remark that no physician here would be likely to see it more than once in a lifetime!

Since that time diphtheria has also become a common disease. The cholera has several times spread widely over our country. Typhoid, typhus, relapsing, are ever in motion. Yellow-fever is common along the Gulf and Atlantic seaboards, and to all these may be added the protean forms of marsh malarial diseases, which prevail more or less over the whole of our Middle, Southern, and Eastern States.

All the diseases which have been imported are still lurking in the land—lying dormant for a time and then waking into activity, and thus showing that asthenic influences not only live but have been multiplied. It may or may not be that this constant presence of the causes of asthenic diseases produces an abiding modification in the types of those of simple inflammatory character.

From the mass of evidence to be found in the history of medicine, bearing on the point, it would seem pretty well settled that epidemic causes do influence for a time all other diseases with which they come in contact; and the question next arises, as to how long a town or country may remain under such influences? Sydenham says "*a few* years." Some of the old practitioners in Great Britain and the United States assert confidently that a change has come over the type of our inflammatory diseases since the visitations of Asiatic cholera, and that bloodletting is not now as well borne as it used to be. Some of the practitioners of our Gulf States go so far as to assert that the congestive fever of that region is a hybrid offspring of marsh malaria and the poison of cholera, different from any endemic fever there known before. Without expressing any opinion on this latter point, I must say that the collapse, the cold clammy skin, absence of pulse, cyanotic condition of skin, sunken eye, altered voice, diarrhœa, emaciation, all coming on in a few hours, present a picture resembling much more cholera than any of the ordinary forms of bilious, remitting, or intermitting fever.

That circumscribed local inflammation (as Dr. Hughes Bennett asserts), when once *established*, is always the same, and that depletion will have no influence in resolving it, is a point I do not propose to discuss, although I am not yet prepared to admit it without any qualification; but I must say that in certain cases of acute inflammation, in subjects of full habit where the heart's action is *above* its normal standard, I feel assured that bloodletting and the antiphlogistic regimen generally will often moderate its course and *limit its extent*. I think this conclusion is as demonstrable as the fact that inflammatory action in a foot is moderated by elevating the limb, and thus diminishing the supply of blood. The heart, in this case, has to struggle against gravity, and the part becomes paler and less painful.

Whether pneumonia and other acute inflammations be or be not at all times the same, and are in all cases to be treated by feeding and stimulants in Edinburgh, I leave to Dr. Bennett and others to determine; but that pneumonia in Mobile and New Orleans will run its course independently of atmospheric and other modifying influences, and always require the same principles of treatment, I must be permitted to doubt.

In one year I have seen pneumonia present itself in its simple uncomplicated form, requiring little treatment beyond good nursing and proper attention to diet. In another the disease would assume a decided typhoid type, characterized by great debility, rapid, feeble pulse, dry, brown tongue, tendency to stupor or delirium, not unfrequently diarrhœa and tympanitis, and calling loudly for brandy and ammonia from the beginning. In a third year the marsh malarial influence would be strongly engrafted on the pneumonic symptoms—chills, bilious vomiting, paroxysms of fever following the chills, and passing off with sweats, jaundiced skin, &c.—all the symptoms indicating the free use of quinine, and the cases recovering well under it.

Now all these types of pneumonia were recognized and discussed among the Mobile physicians—Drs. Mordicai, Fearn, Crawford, Levert, and others—sensible and judicious practitioners. None of us, thirty years ago, thought or cared what Hughes Bennett and others were to teach in after times. We had sense enough to recognize the types of diseases that would not *tolerate* bleeding and purging. None of the physicians of that day ever drew blood; everybody fed and stimulated their patients; and even Rush himself would not have dared to deplete such diseases as we then saw in Mobile, and which were the same types that have prevailed ever since. My notes of cases were destroyed by fire; but I recollect very distinctly an epidemic of the malarial or *intermittent* type, about the year 1855, of which Dr. F. E. Gordon and myself had, during the spring months, in our private hospital, upwards of thirty cases. Not only did

they have intermittent fever, with yellow skin and eyes, but the sputa were strongly tinged with bile, as was the urine. Yellow-fever is another disturbing cause in the types of diseases along the Gulf and South Atlantic States. Whether it be imported or indigenous to the soil is still a matter of dispute, though I think the argument is in favor of foreign origin, even in our Gulf States. Admitting that yellow-fever is imported from the tropics, the climate of Mobile, New Orleans, and other Gulf towns is so nearly tropical that there is no reason why this disease should not there become domesticated, and preserve all the habits which characterize it in the tropics. Small-pox, scarlet-fever, and other imported diseases have preserved among us the same character and habits they brought from Asia, like many of their animals, plants, and even insects. Though properly a disease of the tropics, and countries bordering them, it will occasionally break over its accustomed limits and travel on along the Atlantic coast as far north as New York.

Typhoid fever, on the other hand, belongs to the colder climates; but from time to time migrates southward, even as far as the Gulf of Mexico. Wherever these diseases go they make their mark on all other intercurrent diseases. From 1793, during a series of ten years, Philadelphia was never clear of yellow-fever, and its influence was doubtless felt through the whole of that time on the endemic fevers of that city. Whenever typhoid fever invades the Southern States, it lingers for several years, and gives its type to all the local diseases, whether zymotic or inflammatory. Yellow-fever being a permanent resident in our Gulf cities, its influence on the local malarial fevers is *never absent*. Yellow-fever is a disease of short duration, running to a crisis, characterized by great prostration, about the fifth day, and demanding the early use of stimulants to guard against fatal collapse. There is a marked tendency in the *malarial* remittent fevers in Mobile to early prostration, and this peculiarity cannot be appreciated by a physician who has not practised in the *interior* of the Southern States, where the bilious fevers running nine, fourteen, and twenty days (as described by Fordyce, Armstrong, and other authors of their day) are a common type. This was the type of disease I used to treat in South Carolina, which was called "high bilious fever," and characterized by great heat of skin and tension of pulse. Some physicians drew pounds of blood, and still the pulse would retain its force and the skin its high temperature. To my astonishment, when, in 1836, I removed to Mobile and met the bilious fevers of that locality, I found that the type was entirely new to me. The transition was so sudden that I could not be mistaken, and to make surety doubly sure, when I went back on a visit to Columbia, South Carolina, Dr. Trezevant and Dr. R. W. Gibbes, my contemporaries, informed me that the sthenic type of fever which I left there ten years before had disappeared from that locality. That this change of type had occurred is certain, but I am unable to assign any cause, as there was no change in the physical condition of the country from drainage, &c., at all appreciable. Although the type in South Carolina had changed, it still had no resemblance to the fevers of Mobile, which are characterized by early collapse and demand for stimulants.

Yellow-fever travels from place to place by epidemic laws. Intermittent and remittent fevers are *endemic*, and arise from local causes Yellow-fever is a disease of towns and ships, but will travel from towns into the surrounding country. Intermittents and remittents belong to rural districts, and do not originate in the heart of densely built cities. Whenever the two diseases come together, their types are blended in every possible degree, so as to defy clear diagnosis either in the living or dead subject.

Zymotic diseases differ greatly in their habits, and in nothing more than in degrees of contagiousness, different modes of generation, and communicability. The poison or germ in some cases is multiplied in one animal body (as syphilis), and communicable only by contact. Others, as small-pox, may, in like manner, be inoculated, and also disseminated through the air to a certain distance, and thus affect other persons. Next we have a class of diseases which are only occasionally contagious, and even then under unknown circumstances, such as measles, scarlet-fever, &c., the contagiousness of which is even still denied by some. We then have another class, of which I will select yellow-fever as a type, in which the germ originates independently of the human body, propagates by unknown laws, and spreads from point to point, much after the manner that certain insects travel over agricultural districts, attacking here and there certain plants. The germ of such diseases may unquestionably be carried in vessels, trunks of clothing, &c., from infected districts, and turned loose to do its work of destruction in distant places.

Now, in what form the germs of zymotic diseases exist is at the present day a matter of mere speculation.

There are many strong reasons for adopting the very prevalent theory of the present day, that many, if not all, epidemic diseases, such as cholera, influenza, yellow-fever, and others, originate in some *organism* or animal cell; but the subject opens too wide a field for our present limits. Many of this class of diseases correspond more closely in their habits, mode of propagation, &c., with the known habits of insect life, than with any theory which derives them from gaseous or malarial emanations caused by animal or vegetable decomposition. Yellow-fever, for example, which I have lived with and studied for thirty years, is never influenced in the slightest degree by currents of wind. It will often commence near the wharves of a city, and go slowly and steadily on in a certain direction for weeks in spite of constant changes of land and sea breezes. As Dr. Warren Stone remarked, it sometimes goes, like a tax-collector, along a street for two or three weeks, and patients taken from the infected street to other parts of a city never carry the disease with them. It seems to have its own powers of propagation and locomotion, by which it extends from point to point independently of any laws which belong to gases.

There are other arguments which favor this animalcular theory, connected with the curious manner in which certain types of zymotic diseases become blended when brought together. If such diseases originate in organic forms, these microscopic organisms, it is reasonable to suppose, may obey the same general laws in their mode of propagation which belong to more highly developed or larger animal and vegetable organisms. They may in like manner have their *sexes*, their families, genera, species, and varieties.

The *origin of species* has long been a battle-field among naturalists. Although the writings of Lamarck, Geoffroy St. Hilaire, the "Vestiges of Creation," and others, long kept the development theory before the world, it had been losing ground for some years, when Darwin came out with his remarkable book on the "Origin of Species by Means of Natural Selection," which at once produced a turn in the tide of opinion among men of science, that has been running strongly in the opposite direction ever since. The boundaries which but a few years ago had been placed between species, both in the animal and vegetable kingdoms, are no longer recognized, and even the law of *hybridity*, which was long regarded as the test *par excellence*, is daily

losing its supporters. It is now contended that not only may one species, in a long series of ages, be transformed into another, but one genus into another, and the doctrine is carried so far by many (and among others by a distinguished naturalist of this city) as to assert the identity of the ultimate cell or molecule of animals and vegetables. The ultimate cell being the same, the vegetable cell may be developed into the animal of lowest type, and development may go on through all grades from the worm to man himself. If we admit but a link or two in the chain, we can place no bounds to this doctrine of *development* on scientific grounds. A *species* has been defined to be a primordial, or original organic form, which has been handed down through successive generations without change of type. For example, all the horses now in existence are derived from one original pair. When two species, according to this school, are bred together they produce a *hybrid*, or unprolific offspring, a familiar example of which is seen in the common *mule* from the ass and mare. This test of specific difference is now stoutly denied by Darwin and his followers; even such men as Sir Charles Lyell and Owen abandon the test of hybridity.

To make myself more clearly understood, I give one or two illustrations from the animal kingdom. As a general rule, each genus has several or many *species*, and these species vary much in type, some being more closely allied, or resembling each other more closely in physical characters than others. For example, the genus *equus* (horse) comprises, according to most naturalists, six species, which have been regarded as of distinct origin, viz.:—the horse, ass, hemionus, couagga, daw, and zebra.

The law of hybridity applied to these species does not hold good throughout. The ass and horse bred together produce a true hybrid which is unprolific, though there are some exceptional cases where the mule has bred when crossed back on one of the parent stocks, but here the prolificacy stops. If, however, the ass be crossed on the hemione—another species of the same genus—a different result follows, the offspring continues to be prolific through successive generations, as has been proven by experiments made in the Garden of Plants in Paris.

Again, the *Canidæ*, or genus to which the dog belongs, comprises also several *species*, as the dog, wolf, jackal, fox, and hyena, and there is good reason (as the law of hybridity is no test) to believe that our domestic dogs are derived from several original species instead of one.

The dog for a long time was supposed to be a descendant of the common wolf, but the law of hybridity, if of any value, seems to negative this conclusion. Experiments in the Garden of Plants have shown that when the cross-breeds from the wolf and dog are bred together they cease to be prolific *after the third generation*; and the cross between the dog and jackal becomes sterile *after the fourth generation*. These facts upset the opinion that prolificacy *inter se* is a test of species, and go to show that there is a sliding scale, or different degrees of prolificacy among the species of genera, running from perfect sterility to perfect prolificacy. The dog would seem to afford a striking example of unlimited prolificacy among species of a genus, and those who advocate the diversity of origin of the human races regard mankind as an equally strong example.

It is conceded, then, that there is a widespread mingling of types in the animal kingdom, extending from the highest to the lowest; and this blending of types is even more common in the vegetable kingdom, as every botanist can attest.

(To be continued.)

Original Communications.

A MEDICAL THERMOMETER.

By E. SEGUIN, M.D.,

NEW YORK.

READ BEFORE THE NEW YORK MEDICAL LIBRARY AND JOURNAL ASSOCIATION, 16TH JUNE, 1871.

It is no secret that we have a *medical thermometry*, and, as yet, *no medical thermometer*. So far, physicians have borrowed their instruments from physicists, and with them, and an indomitable perseverance, have extracted the elements and principles of the new science from the chaos of figures juxtaposed as equivalents from Fahrenheit, Réaumur, and Centigrade. As on a battle-field, many lives have been sacrificed since five-and-twenty years, so in taking temperatures, reducing one scale into another, writing figures, drawing curves and diagrams, summing up the products of the most intricate traces into general laws of thermo-physiology, and special laws of thermo-pathology, which will pass, like so many victories, to posterity under the name of General Wunderlich and others, who evolved the truth from the million of observations of the thousand nameless observers.

This was good to begin with, in the heroic times of thermometry. But since this mode of diagnosis has become popular, we shall have to simplify its instruments and method of recording observations, to lower it to the vulgar heroism—heroism yet, after all—of the daily laborers in physic, who are willing to use the new method of diagnosis, provided it is made as expeditious as it already is effective. Let us, therefore, admire the monuments of the Titanic period of thermometry, like the Treatise of Wunderlich "On the Temperature in Disease," etc.; but entertain no illusion as to its fate. If its instruments and procedures are not simplified, it will remain the privilege of a few hospital dictators, instead of extending its benefits to the whole profession.

The simplification must bear upon the instruments and upon the method of recording the data, and I would, unless better advice prevail's, express the want of the profession in the matter thus:—

A. Medical thermometers; B. Medical scale of temperature, with plain writing, instead of drawings of the records of temperature; at least in private practice. Inseparability of the records of the three vital signs, temperature, pulse, breathing. These records written *en suite*, like any other form of observation, collected in septenary groups.

(*a*) Thermometers cannot be called medical so long as they do not fit the requirements of the profession. For one of these requirements we want to take the general and local temperature, therefore we must have a thermometer adaptable to cavities, and another to surfaces,—have not surgeons more than one knife?

(*b*) For another requirement,—can thermometers really be called *medical* whose scale is not based upon the *thermal status of man?* In other words, what has the freezing point of mercury, or the melting point of ice, to do with our own caloricity? The second proposition enunciates the absurdity of the present situation.

Thermo-physiology has found the temperature of a healthy man to be at the axilla (a convenient and decent place, too) 98.6° Fahr. = 37° Cent., with due regard to the oscillations integral to life itself. Practically this is the 0 temperature of medical thermometry.—the *norme*.

Objections may be raised against taking this *norme*

as the standard measure of the medical thermometer on account of the diurnal variations, the idiosyncrasies, or the differences between the results obtained by the fever thermometer in several cavities, and by the surface thermometer at distant points of the periphery; but they have less weight than those raised against taking the pulse at the wrist as the standard measure of the general circulation.

The only possible objection to this standard would be the eventuality of a future displacement of the thermal point of health.

This objection is serious, but not formidable. Indeed, such a displacement has already taken place, at least theoretically; since, in 1835, Brechet announced it to be 36.9° Centigrade = 98.5° Fahr.; and in 1871 we accept, on the authority of Wunderlich, 98.6° F. = 37° Centigrade as the basis of medical thermometry. (Are calendars less useful since their errors have been corrected?) Now, supposing the German calculation to be proved incorrect in its turn, what of it? The error could have come in two ways: Either Wunderlich, whom we trusted, did err, and his calculations in regard to the mean temperature of the human body and his conclusions would be quashed (as were those of the Julian calendar); or the thermal conditions of man would have undergone some alteration which would have displaced our mean temperature lower or higher than the norme of Wunderlich, 98.6° F. = 37° C. If such possible alteration, ever so insensible in its march, should happen, the discrepancy between Nature and the standard measure would soon be detected. A new standard measure would be established, by transferring the norme—*zero* health—lower or higher on the thermal scale; and eventually, by repeating this transference, to meet the changes of human temperature in the course of ages.

These successive normes of human temperature would stand, like the pylones of Egyptian hydrometry, instead of impediments to progress—as the landmarks of the gradual decalorification of our race—a series of physiological monuments, unequalled by any other discovery for its importance upon the "Natural History of Man."

There is a deal more to say on Physiological Thermometry, but I make haste to contract this note to the present engrossing topic, "thermometry rendered accessible to any conscientious physician, and through him to mothers and medical attendants." For it is of no use to preach thermometry to the great mass of practitioners, whose time is mortgaged for bread to their families and charity to the needy, if, to apply the instruments, read, understand, and transfer their results from arithmetical scales to drawn traces, exacts an expenditure of hours to be found nowhere in their twenty-four.

Therefore, the question of taking and registering the products of clinical thermometry *in no time* contains in reality the *to be or not to be* of medical thermometry itself.

And it is almost equally useless for the family physician to ask a mother or nurse to take and note the temperature at stated hours, when his experience tells him that, in spite of the most minute explanations and directions, the minds of nine-tenths of them will not comprehend, what their senses cannot perceive, viz., the correlation of a scale of temperature calculated upon the thermal conditions of water or mercury, with the scale of temperature of the human blood.

Therefore, the question of putting in the hands of mothers and nurses thermometers whose scale corresponds with that of human temperature, implies that of the possibility for the physician of having assistants or substitutes, wherever the study of temperature helps to solve the problems of life or death: that, too, is the *to be or not to be* of medical thermometry.

Under the pressure of this double dilemma, and in the faith that "*anything good must be possible*," I have caused a *meter of human heat* to be made, which is neither Fahrenheit's, Réaumur's, nor Celsius' instrument. Let it be called by its destination, "The Medical Thermometer," whose zero temperature corresponds to the average health-point of the human body, whose (centigrade) degrees run up for fever, and down for depression of vitality, with minor divisions of a fifth of a degree, themselves easily divisible by sight in tenths. Let us now see how it works.

The physician, having warmed it in his hand or pocket almost to zero (more if it is the fever, less if it is the surface * instrument), sees either mark the temperature looked for in two or three minutes, two more being added to make sure of the result.

Or if he leaves it to an attendant, with instructions to use it at stated places and times, he first makes him familiar with the zero standard of health; then with the fever significance of a rise above zero; then with the warning of depression expressed by the fall of the mercury below zero; and finally with the writing of the temperature *just as it reads on the stem* of the instrument.

With mothers it is different; I think it our duty to teach every one of them among our patients who can be taught, not only the use, but the philosophy of prophylactic thermometry; by which they would be rendered competent to foresee, and often to ward off, perils that the thermometer predicts always several hours in advance, as the barometer does the storms. Then let the hour of family trials come, zymotic or contagious diseases invade the home circle, and by your side you have the faithful woman. Neighbors, quacks, and mediums proffer in vain their nostrums, she stands by her thermometer, knowing that a calm record of a day's fever brings more hope than a dishevelled therapeusis.

B. After a medical thermometer, the next desideratum was "a mode of recording the temperature, so simple that almost anybody could write it *as it passes* on the instrument." The mode of recording the temperature by waves of lines may remain the favorite for hospital records, but for private practice and for the study of isolated cases it is desirable to have a direct transfer of the figures of the thermometer written *en suite* like book-matter. This is what I have aimed at. It is no invention; a simple arrangement of the symptoms in their chronological order, susceptible of improvement at the hand of any one desirous of spreading the art and practice of medical thermometry. There it is in blank forms. (See page 198.)

The first line is given to number, name, age, sex, and septenary. The second is divided in seven cells for the numeration of the septenaries, beginning with the first of the disease. The third line is divided into fourteen cells for the morning (M) and evening (E) observations, besides a supplementary cell for the sum of the temperature of this septenary: each record is written under the day of the disease it belongs to, eventually leaving blank several of the first days of the disease which have not been observed.

These records run up and down the zero line of health, which separates horizontally in two this third division, exactly as the temperature passes up and down the zero point in the thermometer itself. On this double line can be read, at one glance, the daily remissions and exacerbations, the acme or the collapse,

* See the lecture "*on Surface Thermometry*," delivered before the New York Medical Library and Journal Association, the 16th December, 1870, and published in the New York MEDICAL RECORD, January 1, 1871.

the effervescence and the defervescence, besides the possible relation of the latter phenomena to the doctrine of the crisis. (To use this line to record the surface thermometry, the M and E are altered into the initials of the two points of the surface under comparison.) The fourth line, divided in eight cells, gives the daily average of the observations recorded in the third, *plus* the septenary average. The fifth line records the pulse, and the sixth the respiration. Every new septenary comes *en suite* of this, without repetition of the headings, of course.

The plan of this diagram, which embraces (*a*) the temperature, (*b*) the pulse, (*c*) the respiration, (*d*) the critical periods, will be found acceptable; but its material arrangement may and must be improved by practical men; I know it and wish it.

However, leaving the details to take care of themselves, I conclude: Thermometry is the question of the present hour; towards it all foreseeing eyes are turned. It is irrevocably wedded to medicine by its force of prognosis and diagnosis. By the mathematics of its data, and the positivism of its method of observation, it has already discovered the normal point of human health, some laws of general pathology, and not a few of special diseases. Higher, it has identified physiology with the other physical sciences, by rendering mathematically demonstrable the degagement of heat by muscular movement, the influence of the nervous system on the production of warmth, and the convertibility of human heat in physical and intellectual activity.

This and more has been done, in a few years, by a few men, with instruments made for another kind of work. But who knows what medical (human must I say) thermometry could do, when the simplicity of its procedure, the adaptability of its instruments, the number of its devotees, will permit its application, not only to the treatment, but to the prevention of disease, and especially to the high supervision of the training of the youth, in reference to the dosing of air, moisture, heat, light, food, exercise, studies, in the sickly conditions of the growing stage. Then we will begin to understand that, for physicians, thermometry is not only knowledge, but social power.

But I must end here, just where the subject-matter of thermometry begins to assume its grandeur.

NEW YORK, 58 W. 26th street.

No.	Name.			Age.	Sex.	Disease.			Septenary.
	Days.	I M~~E	II M~~E	III M~~E	IV M~~E	V M~~E	VI M~~E	VII M~~E	1st.
Temperature	Fever								Total up.
	Zero Health								
	Depression								Total down.
Daily average									Average of temperature.
Pulse									Id. of pulse.
Respiration									Id. of breathing.

SINGULAR AND DISTRESSING CASE OF MALFORMATION OF GENITAL ORGANS.

By JOSEPH JONES, M.D.,

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THE following curious case of malformation of the genital organs came under my observation during the past year, and was brought before the medical class of the University of Louisiana.

J. H. Allen, age 23, height 5 feet 7 inches, weight 150 lbs., native of Illinois, U.S.A. Dresses in male attire. Voice fine, like that of a woman. Face full and smooth, without any sign of a beard. Features resemble more nearly those of a woman. Mammæ larger than is usual in men, but smaller than those of women. Nipples small, but well formed, with a distinct dark areola. No hairs around the mammæ or on the breast, which is smooth like that of a woman. With the exception of the pubes and scalp, the body is devoid of hair. The general form is that of an athletic masculine woman. Hips full, and wider than chest. Circumference around hips 39½ inches; circumference of chest during full inspiration 35 inches; circumference of chest during expiration 32 inches. Has a small, well-formed penis ⅜ths of an inch in length, and $1\frac{8}{10}$th inch in circumference, with glands, frænum, prepuce, and urethral opening. The patient discharged urine through this opening in my presence. Below the penis there is a slight swelling or fulness of the integuments with a distinct raphe or tramis, like that which divides the scrotum in men into two parts, extending from the anterior part of the anus to the extremity of the penis. Upon careful examination, however, no testicles can be felt on either side of the raphe, or within any portion of the fulness which corresponds to the scrotum. A careful examination by the introduction of the finger into the rectum, whilst firm pressure was made upon the abdomen above the pubes, failed in disclosing the existence of any body corresponding to a uterus. This examination, however, was not entirely satisfactory, on account of the fulness of the abdominal walls. Buttocks and thighs full and round. The upper line of the hairy pubes terminated abruptly, without any fading off in the median line, as in males.

I gathered the following facts from this individual:

Father of John H. Allen a strong, healthy man, native of Boston, Massachusetts; mother a healthy, well-formed woman, native of Pennsylvania; parents have had nine children, eight of whom were well-formed; the eldest, a woman aged 25, has had three well-formed children. The subject of this examination is the second child. The third child, aged 21, is a

woman and married. The remaining children were three boys and three girls; and of this number one girl and two boys have died; one boy, 13 years of age, well-formed, living; two sisters, aged respectively 10 and 2 years, living.

The subject, J. H. Allen, has always been called Johnny, and was dressed as a boy from early childhood. Was not aware that there was anything peculiar in his organization until after the age of 12 years had been attained; upon one occasion, when swimming with a number of boys, it was discovered that he was not formed like a boy, and was called by his companions, "a half boy and half girl." Attended school up to the age of 17, and since this time has followed the occupation of "bar-tender." Has been taken up by the police upon several occasions as a woman in man's clothing, and after being examined, has been released as a "non-descript," but has always been compelled by the authorities to wear male clothing.

Prefers the male sex; never loved a woman, regards women as sisters; has loved a man devotedly, but always feared to divulge the passion. Loves the dress of a woman and despises that of a man. When insulted feels like crying, as is common with women. When travelling on the Mississippi boats has several times been approached by rough men, who threatened rape, declaring that Johnny was a woman in man's clothing. Upon one or more occasions has excited the jealousy of women, on account of the supposed attentions of their husbands. When acting with a stock company, in the character of a woman, the wife of one of the actors who played the part of lover to Johnny, was excited to violent jealousy.

When dressed in women's clothing neither men nor women ever suspect Johnny to be anything but what the dress and general appearance would indicate.

The condition of Johnny is most distressing; it is with great difficulty that a position or work of any kind can be secured or retained, on account of being suspected as a woman in man's clothing; and when travelling in strange places, or when walking upon the streets at night, is liable to insult and arrest. His most earnest wish is to be allowed to wear women's clothing, and to enter the stage as an actress.

As far as my inquiries extended, there has not as yet been any periodic discharge of blood from the urethra, rectum, stomach, or nostrils, which could be considered as connected with the menstrual function, although the patient described certain vague and uncomfortable feelings in the abdomen and certain periodic changes of the complexion and features.

Quinine in Pneumonia.—Dr. A. J. Terrell, of Henrico County, Va. (*Virginia Clinical Record*), is in the habit of treating pneumonia with large doses of quinine, and says that he has seen as much benefit (in a curative way) from this plan of treatment as from any medicine in any disease. It shortens the attack, and the earlier it is resorted to the better. He regards quinine as a great equalizer of the circulation, and, acting upon the nerves which control the circulation, it is necessarily anti-congestive. Some physicians, he remarks, admit its beneficial effects in typhoid pneumonia, or when there is a remittent tendency, or malarial complication in any form; but he makes no discrimination, giving it in *all* cases, in large doses, for its sedative and anti-congestive powers. For the diarrhœa which sometimes supervenes in the progress of an attack of pneumonia he has found nothing better than a few grains of tannin, in combination with the quinine, for arresting it.

Reports of Hospitals.

MANHATTAN EYE AND EAR HOSPITAL.

A CASE OF POLYPOID GRANULATIONS OF THE MEMBRANA TYMPANI, OF TEN YEARS' STANDING, CURED BY FOUR APPLICATIONS OF A FORTY-GRAIN SOLUTION OF NITRATE OF SILVER.

Reported by D. WEBSTER, M.D.,

HOUSE SURGEON.

Mary B——, American, aged 25, has had an affection of the ears, dating back to an attack of scarlatina fifteen years since.

Left ear has discharged constantly for ten years, with occasional attacks of pain of a slight character.

Hearing-distance, voice, about eight inches.

On examination, a raspberry-looking polypus was found, filling the whole breadth of the canal, overlying the drum membrane, not sufficiently salient to catch with forceps or snare; exact point of attachment not diagnosticated.

With Siegle's otoscope, traction by the breath caused it to move slightly outwards, giving the impression that it was on the membrana, or was even a polypoid degeneration of the membrana itself.

A forty-grain solution of the nitrate of silver was dropped upon the part by means of an instrument analogous to the atropine dropper; the head being thrown into a horizontal position, and so maintained for a minute, that thorough cauterization should result; then the remains of the agent well washed away by syringing with warm water.

This process was repeated for four successive times, at intervals of two days, when the whole of the polypus was found to be removed.

The hearing-distance was now four feet for the voice, which could be still improved by inflating the tympanic cavity by means of Politzer's plan.

The drum membrane is mostly intact. The manubrium and tubercle are both demonstrable, the membrane in the upper portion is in a good state of preservation, somewhat opake, with the dermoid layer partially exfoliated. The lower part of the membrane is somewhat cicatricial, with one or two minute fissure-like perforations, hardly demonstrable except by inflation, which causes excessive movement of this part of the membrane. The discharge has totally ceased; the doctor had some doubt on this head, and so directed patient to abstain from syringe for two or three days, when, on examination, the parts were absolutely dry, not even moistening a bit of cotton on a probe passed in. The above plan of treatment is, as far as I know, somewhat peculiar to Dr. O. D. Pomeroy, in whose care the patient remained during treatment. He holds, I believe, that the nitrate of silver is practically not a caustic to the integument which covers, as we are aware, the outer surface of the drum membrane and the external auditory canal, hence the great freedom of its use by the doctor.

Touching the granulations with the solid stick or with a solution only causes the application to reach the more salient parts of a granulation, whereas by inundating the polypus every part must be thoroughly cauterized without doing harm to neighboring parts.

The remarkable success of the treatment in this case would have made me doubt the correctness of the observations but that I verified them by very careful examinations during the treatment.

Progress of Medical Science.

Will Quinine Originate Uterine Contractions?—In answer to the query in the *American Practitioner*, "Will quinine originate contractions in the gravid uterus?" Dr. Lewis A. Sayre, of New York, publishes a case in the same journal, in which quinine was given to produce premature delivery on account of a deformed pelvis. Its administration was followed, in a very short time, by rigorous and continued contraction of that organ. This case was one of more than ordinary interest in its clinical history, as serious complications attended the first confinement, and this was the second time that labor had been successfully induced before the eighth month, and in both instances with a living child.

In this case it may be very properly questioned whether the quinine was the active agent in inducing contractions, or whether it was a mere coincident, as other means had already been employed to induce labor. But as the contractions did not occur until after its administration, Dr. Sayre thought it of sufficient importance to note the fact.

In the *Giornale Veneto of Medical Sciences* of last month Dr. Angelo Monteverdi has found the Peruvian bark and its preparations to contain highly emmenagogue properties superior to the ergot. The sulphate of quinine, at doses of five grains every half hour, administered to pregnant women, will produce—first, the simple tension of the fibres of the uterus; second, slight contractions; and lastly, strong and expulsive contractions, so as to cause miscarriage and premature birth. He has used the sulphate of quinine as above in cases of protracted labor without regular or long pains, and flaccidity of the uterus, where the ergot should have been used, even where rigidity of the os has existed, or where the placenta has not been successfully expelled, and he has found the first dose of quinine to revive the already ineffieient pains and contractions, and successfully carry to an end, in less than an hour, the long-desired labor.

English Operations for Ovariotomy.—In a paper on "Ovariotomy in England," read before the Louisville Obstetrical Society, by S. Brandeis, M.D., Louisville, Ky. (*Rich. and Louisville Med. Jour.*), it is noted that Dr. Paul Greuser, the publisher of the latest edition of Professor Naegele's Hand-book on Midwifery, during a sojourn of six months in England witnessed 20 operations for ovarian tumors, of which 16 were completed, while 4 remained uncompleted. Of that number, 5 were made by Thomas Keith, 1 by James Y. Simpson; Spencer Wells, 12 (6 in Samaritan Hospital and 6 in private practice); Murray, 1; and Graily Hewitt, 1. From the 16 completed cases 4 died; from the non-completed cases 2 died.

Dr. Brandeis, in conclusion, presented the subjoined statistics in regard to English operations for ovariotomy, with their results:—

Names of Surgeons.	No. of Operations.	Recoveries.	Deaths.	Percentage of Recovery.
1. Clay.....	210	138	72	65.76
2. Baker Brown.....	120	84	36	70.01
3. Spencer Wells....	300	215	85	71.66
4. Thomas Keith.....	87	72	15	82.73

The reason why English surgeons surpass all other nations in the results obtained in ovariotomy, Greuser believes to be found in the easy and quiet temperament, with the hardier and better nourished systems of Englishwomen; the proper selection of the locality; rooms well ventilated, on the second or third story, remote from patients with serious ailments; the great variety of precautionary measures; the superior operative skill and manipulation, and nurses well trained for the work.

As a proof that the operations performed in the London hospitals do not furnish as good results as those in private practice, the following table, taken from a Swedish work, will demonstrate:—

Hospitals.	No. of Cases.	Recoveries.	Deaths.	Percentage of Mortality.	*Surgeons.*
St. Bartholomew's.	12	4	8	66.67	Mr. Willett.
Middlesex	8	1	7	87.50	Dr. Hall / Davis.
King's College...	7	1	6	85.75	Dr. Priestly.
St. George's.....	7	2	5	71.73	Dr. R. Lee.
University.....	5	1	4	80.00	Mr. Eriehsen.

Tincture of Arnica in Acute Pulmonary Affections.—This remedy is recommended in the treatment of acute pulmonary affections by Dr. C. C. Balding, in the *Lancet*. He was first induced to employ arnica in these cases by observing its effects in "keeping down" the pulse of a man who had his chest squeezed between the buffers of two trucks. Dr. Henry Mitchell has treated a large number of cases of pneumonia and hæmoptysis with it, and relies solely upon it in doses of 5 to 10 minims in an alkaline solution every three hours. It has the effect of controlling the pulse and the frequency of respiratory movements.

To Prevent Infantile Gonorrhœal Ophthalmia.—When the lying-in woman has gonorrhœa, Dr. Brandeis, of Louisville (*Rich. and Louis. Med. Jour.*), would suggest that the child be allowed to be born, if possible, without a rupture of the membranes, thus protecting the eyes of the infant against this cause of ophthalmia.

Digitalis in Mania a Potu.—Dr. Larabee, in a paper read before the Medico-Chirurgical Society of Louisville, Ky. (*Rich. and Louis. Med. Journ.*), on "Digitalis in Mania à Potu," based his remarks upon its use in twenty cases. It was given in all these cases in doses never less than ʒ ss., nor more than ʒ j., repeated if necessary. In no case was there any toxical effect of the drug, but in all cases the sleep which followed was sweet and refreshing. In no case, on waking, was the delirium again present. He seldom found it necessary to go beyond the second dose, and in four instances only one dose, ʒ ss., was administered.

Dr. Gaillard thought the good effects of digitalis were due to its imparting to the arteries and arterioles the same tonic effect which it imparted to the heart—removing the passive congestion of the capillaries.

The Ligature in Operations for Ovariotomy.—Dr. J. Taylor Bradford, of Augusta, Ga. (*Rich. and Louis. Med. Journ.*), writes that he has left, for the present, the well-to-do standpoint of caring for the *ligature outside* the wound, and gone over to the Tyler Smith method of ligating the stump, cutting both pedicle and ligatures short, and returning them to the abdomen. In his last two operations, of thirty-one completed operations, and three deaths (all by the ligature), he cut

short the ligature of the pedicle and adhesions in both cases, and returned them into the abdomen; one is completely well, and the other walks about the house; one of the patients required *eleven* ligatures to the adhesions, the other *six*.

Management of Incontinence of Urine.—John Barclay, M.D., of Aberdeen (*Med. Times and Gazette*), during the past two years and a half has successfully treated twenty cases of incontinence of urine by the syrup of the iodide of iron alone. The improvement in several of the cases followed so closely on the administration of the remedy as to leave no doubt but that the good effect was due to the syrup. Dr. Manson, of Baniff, and Dr. Smith, of Kinnairdy, have both found the medicine equally satisfactory.

Tea Leaves to Burns and Scalds.—Dr. W. H. Searles of Warsaw, Wis. (*Chicago Med. Examiner*), some few years since, accidentally found that a poultice of tea-leaves applied to small burns and scalds, afforded immediate relief. He has given it a more extended trial since then, and has come to prefer it above all other remedies in the first stage of burns and scalds. The leaves are softened with hot water, and, while quite warm, applied upon cotton over the entire burned surface. This application discolors and apparently tans the parts, and removes the acute sensibility and tenderness.

Morphia as a Parturient.—Dr. George H. Vance, of Swedona, Ill. (*Chicago Med. Examiner*), coincides with Dr. Robson in the belief that the action of the sulphate of morphia is similar to the secale cornutum, whether given in a state of natural or unnatural parturiency. In all his cases where threatened abortion has occurred and he has administered this salt, the parturient throes were immediately increased, and delivery was the result. The same contractile efforts of the womb have been brought about in cases of natural labor, where cessation of action had taken place.

Ulceration of the Frænum Linguæ in Pertussis is referred to, by a writer in the *Glasgow Medical Journal*, as a diagnostic sign of this disease. This lesion has been before noticed by a few writers, who have considered it a specific form of ulceration. The writer quoted considers it to depend upon friction of the frænum against the lower incisors during the spasmodic expiratory efforts, and it was discovered by him in 111 out of 252 cases of children in whom the disease was well marked; its location being in front of the frænum, excepting when there was absence or malformation of the lower incisors. It never occurred before dentition had taken place, nor in such children as did not protrude the tongue during the cough.

A New Mode of Administering Copaiba.—The *Lancet* for April 29th ult. contains some remarks by Mr. Berkley Hill on the treatment of gonorrhœa, in which he recommends a form in which this remedy can be taken very easily. It resembles a jelly, is not repulsive to the taste, and if a piece the size of a hazelnut be rolled in wafer paper, it can be swallowed without being tasted at all. The after-effects, of derangement of the digestive organs, he thinks to be rather less from this than from most other forms of administering the remedy.

Take of thick copaiva, eight ounces; powdered sugar, four ounces; honey (not crystallized), four ounces; distilled water, five drachms; oil of peppermint, one drachm; roseine (one of the aniline pigments), one-tenth of a grain dissolved in twenty minims of water. Put the honey, sugar, copaiva, and water into an evaporating dish, keeping it well stirred. Heat the mixture gently till it boils, and continue the agitation and ebullition about five minutes.

In the first part of the operation, two distinct strata are formed; the upper the copaiva, the lower the honey, etc. As the water is evaporated, numerous bubbles of steam are given off, just as the whole becomes a homogeneous jelly. When it has partly cooled, stir in the roseine and the oil of peppermint. When well made, it should resemble raspberry jelly. Should this very minute quantity of roseine be objected to, an ammoniacal solution of carmine gives a very good color.

Treatment of Pertussis.—Dr. John J. Caldwell, of Brooklyn, contributes to the *Boston Med. and Surg. Journal* the description of a method of treating whooping-cough by the application of atomized fluids to the air-passages, in accordance with the theory of Niemeyer, that the disease is a catarrh of the respiratory mucous membrane, attended with intense hyperæsthesia. The result of this treatment, in his own practice, has been that the whooping inspirations have ceased within a week, and the catarrhal inflammation has rapidly subsided.

He recommends the following mixture:—

℞ Ext. Belladonnæ fl. ..... gtt. v. ad x.
Potassæ bromidi ..... ʒj.
Ammoniæ bromidi ..... ʒij.
Aquæ destill. ..... ℥ ij.
M. Ft. solutio.

Of this about a tablespoonful is to be applied once daily.

Diet of Parturient Women.—Dr. Hugh Miller offers, in the *British Med. Jour.*, a reason why a parturient woman should not, as has been so long the custom, be confined, for some time after her labor, to a diet composed wholly or in part of farinaceous articles of food. It being probable that the source of the fat-globules present in milk during the early period of lactation is the muscular tissue of the uterus, which is undergoing fatty degeneration and absorption, the introduction into the circulation of any considerable amount of fatty or starchy food might tend to retard these changes taking place in the uterus, in the case of a feeble patient, or overwork the powers of the mammary glands in others. He recommends, therefore, nitrogenous forms of food as more proper at first, as they will not, by their assimilation, give rise to the above objection, and, moreover, they are better calculated to repair the muscular waste and the exhaustion consequent upon the labor. He feels certain that since adopting this course he has seen, in his own practice, fewer affections of the breasts, and these were more amenable to treatment than formerly.

Tendency of Sponges to Excite Suppuration in Wounds.—A writer in the February number of the *Glasgow Med. Jour.* questions, if the use of sponges in cleansing wounds may not be a fertile source of subsequent suppuration on account of minute fragments of the sponge being left behind, and also the introduction, by means of them, of decaying organic matter derived from previous use on wounds and suppurating surfaces. He suggests that many of the results claimed to be proofs of the value of the antiseptic mode of treatment, might be better attributable to the fact that the nature of the injuries did not require the introduction of a sponge into the wound. He thinks that pieces of ice and the wash-bottle might be made to do all that the sponge accomplishes.

Arrest of Variola by Quinine has been spoken of in a recent note addressed by ex-Professor Coze, of Stras-

burg, to Dr. Lacour, of Lyons (*Presse Belge*), in which he claims to have derived excellent results from its use during the present epidemic in cutting short this disease. As soon as an individual experiences the precursory symptoms of variola (such as headache, soreness of the limbs, cervical and lumbar pain, etc.), he should be confined to the bed, and quinine should be given him every half hour until three or four doses of four grains each have been taken. On the following day, if the symptoms continue, the same treatment should be followed, and almost always the disease will abate, or, if the eruption does appear, it will be extremely discrete. The diet of the patient should, meanwhile, continue as usual. Dr. Coze states that he was led to try the remedy from a knowledge of its marked effects in the relief of headache depending upon over-exertion of the mental faculties, and its influence upon *ramollissement* of the brain when administered during its early stages. He recommends also the use of quinine as a gargle during the progress of variola.

Quinine Biscuits.—One of the London bakers has introduced a dietetic novelty in the shape of quinine biscuits. They are small, extremely well made, and have a pleasant and delicately bitter flavor, not too strongly pronounced, which is exactly what a club man seeks in his sherry and bitters. Each biscuit is estimated to contain one-fourth of a grain of quinine, and for delicate stomachs, or where it is desirable to disguise medicine as much as possible, or to combine food with medicine in a perfectly agreeable form, these biscuits are likely to become very popular.—*English Journal.*

Gonorrhœal Peritonitis.—A correspondent of the *British Med. Journal* calls attention to gonorrhœa as a cause of peritonitis in the female, and believes the Fallopian tubes to be the avenues through which the inflammation reaches the peritonæum. In his experience, the disease differs from puerperal peritonitis in being less severe and of shorter duration, in manifesting improvement upon the removal of as much of the cause as is possible by means of injections of warm water, and upon treating the inflammation by the usual means. No case, he says, has proved fatal in his practice; but he fails to state the number which he has had under observation.

Torticollis.—New Method of Operating.—Prof. Wood, of King's College Hospital (*Med. Press and Circular*), has devised a new operation for wry-neck, instead of the subcutaneous tenotomy of the *origins* of the affected sterno-cleido-mastoideus muscle. It is the substitution of the subcutaneous tenotomy of the *insertion* of the muscle at the mastoid process, instead of the former operation, which is generally practised. In reporting a case, the Professor stated that it was the *third* of the kind on which he had successfully operated, by substituting division of the *insertion* of the sterno-mastoid muscle, in preference to its origin.

Stricture of the Urethra.—A reviewer in the *Med. Press and Circular*, in speaking of the great reputation gained by Mr. Holt, of Westminster Hospital, London, says that there cannot be any doubt that his dilator is the very instrument invented by Perrève many years ago in Paris. Mr. J. D. Hill, surgeon to the Royal Free Hospital of London, has recently added to the fame of Mr. Holt's operation by relating the history of 120 cases of stricture thus treated. Of these 120 patients operated on by Mr. Hill, by Holt's method, 118 recovered, and there were two deaths; and of these 118, all except one could have No. 11 passed before leaving the wards.

In cases attended with complications, Mr. Hill, before using Holt's dilator, advocates the washing out of the bladder by means of a lotion composed of twenty drops of strong nitric acid in a pint of water, to which half an ounce of liquor opii sedativus is added.

This surgeon thinks that Holt's operation is the most satisfactory method of treating any form of organic urethral stricture which is amenable to dilatation, and that, with careful attention to preliminary treatment, there is no more risk to run in its employment than in ordinary dilatation. He affirms that the rate of mortality is probably less than in gradual dilatation, when it is considered that a certain proportion of patients die from extravasation of urine, and from complications following ordinary catheterism.

Lithotomy—the Lateral Operation.—Prof. J. B. McCaw, of Richmond, Va. (*Va. Clin. Record*), advocates the lateral operation, and has uniformly selected it in the *thirty* cases which in the last five years he has cut for stone in the city of Richmond. This surgeon recently removed from the bladder of a laboring man, 40 years old, who was accidentally shot three years and a half ago, a bullet with a large quantity of stone. The stone (triple phosphates) and ball weighed 580 grains.

Pyæmic Fever.—Dr. J. C. Warren, of Boston (*Boston Med. and Surgical Journal*), in a translation of Prof. Podrazki's résumé of *Septicæmic and Pyæmic Fever*, mentions potash and nitrate of soda, the mixtura nitrosa and the mineral acids, and says their value as anti-pyretica is very doubtful. The sulphates are recommended by Rolli both for septicæmia and pyæmia. Whether quinine does any good in large doses, beyond a slight depression of the temperature and retardation of the chills, he should be inclined to doubt. The author adds that it will nevertheless, probably, maintain its position in the treatment of pyæmia for a long time, for we have no other remedy, and yet we must give the patient something. The narcotics are undoubtedly useful in relieving symptoms, particularly subcutaneous injections of morphine. It relieves the patient from pain, and enables him to forget his troubles in sleep.

Injected Placentæ.—Dr. J. B. S. Jackson, of Boston (*Boston Med. and Surg. Journal*), showed, at a meeting of the Suffolk District Medical Society, two placentæ very beautifully injected by Hyrtl, of Vienna. He remarked, incidentally, that the general rule laid down by Hyrtl, that when twins are contained in a single amniotic sac their sex is the same, and when in separate sacs their sex is different, had been refuted by numerous observations to the contrary in his section of the country.

Diagnostication of Bright's Disease.—At a recent meeting of the Suffolk District Medical Society (*Boston Med. and Surg. Journal*), Dr. H. W. Williams referred to four cases, occurring lately, in which he had diagnosticated Bright's disease of the kidneys by the characteristic changes in the retina, as discovered by the ophthalmoscope. Dr. Williams did not regard the degeneration of the retina as especially belonging to the early stages of the disease, yet it was not infrequently the first symptom discovered.

Transverse Fracture of the Tenth Rib from Coughing.—Dr. Miall (*British Med. Journal*) mentions the case of a woman who, in the seventh month of pregnancy, during a violent fit of coughing, fractured the tenth rib transversely, a little anterior to the tubercle.

Bromide of Potassium in Epilepsy.—B. W. Stone,

M.D., Asst. Physician Western Lunatic Asylum, Kentucky (*Richmond and Louisville Med. Journal*), remarks that, although he has not effected any cures with the bromide of potassium in epilepsy, the efficiency of this drug in prolonging, in some cases indefinitely, the interval between the attacks, in often warding off immediately threatening attacks, in procuring sleep and relief from the terrible cephalalgia so often preceding or succeeding convulsions, in moderating the convulsive movements (during spells), in shortening their duration, certainly makes it an invaluable boon to the epileptic. In the selection of a prescription for general use he defers to the experienced judgment of Brown-Séquard, who combines with the bromide the iodide of potassium, the bicarbonate of potassa, and the bromide of ammonium, in about the following proportions: ℞ Potassæ bicarbonatis, ʒ ij.; ammonii bromidi, ʒ vij.; Potassii iodidi, ʒ iij.; Potassii bromidi, ʒ iij.; Infus. calumbæ (British), Oj.

Give a teaspoonful before each meal, and three teaspoonfuls at bedtime, to be taken in water.

Brain-wasting.—An interesting and practical course of clinical lectures on mental and cerebral diseases has been delivered by J. Crichton Browne, M.D., Lecturer on Mental Diseases to the Leeds School of Medicine; and in one on Brain-wasting, he states that: 1st. Women recover from this disease more frequently and rapidly than men. 2d. The earlier the age at which brain-wasting occurs, the better is the prospect of recovery. 3d. The more decided the paralytic symptoms, the worse is the prospect of recovery. He also says we owe a debt of gratitude to Dr. Radcliffe for pointing out the value of cod-liver oil and the hypophosphites in debilitating nervous diseases. They supply the essential elements of nerve-nutrition in an easily assimilable form, and are unmistakably beneficial in cases of brain-wasting. A tablespoonful of cod-liver oil, and 15 grs. of the hypophosphite of soda, given twice or three times daily, at the outset of such a case, often arrest at once the downward tendency, and induce restoration of mental and muscular power. Sometimes, when these remedies seem ineffectual, doses of from 5 to 15 drops of tincture of opium and sulphuric ether, twice a day, expedite their action, besides conferring independent benefits. The opium gives, as it were, a fillip to cerebral nutrition, and thus diffuses a favorable influence through the whole economy.—*British Medical Journal.*

Peritonitis Meretricum.—Dr. R. W. Egan, Dublin (*British Med. Journal*), referring to a paper by Mr. Giles, in the same journal, on the association of gonorrhœa with peritonitis, suggests that a not uncommon cause of peritonitis among females of that class is found in the prevalence of a practice of interfering with the menstrual discharge just at its inception, or during its course. He has on several occasions attended women for ovaritis and peritonitis, resulting, as he believed, from the application of cold to repress, or the introduction of sponge to conceal, the existence of the catamenia. This latter practice he discovered in making a vaginal examination in a case, and finding what certainly was a foreign body. All those cases were obstinate and slow of recovery.

Digitalis as a Topical Remedy.—In a paper read before the Clinical Society of London, by Dr. Royston Fairbank, of Lynton (*British Med. Journal*), on the "Use of Digitalis as a Topical Remedy," he thus describes his mode of preparation and application: Make a decoction of the dried leaves in the proportion of a small teaspoonful to half a pint of boiling water, or a drachm of the tincture may be used in the place of the leaves. Flannels wrung out in the decoction are applied around the inflamed parts in the usual way. Another mode of applying the drug is to foment the part affected with hot water, and afterwards gently rub in a little of the tincture.

Dr. Fairbank has used with great success these local applications of digitalis to cases of acute inflammation of the elbow and knee-joints, and also to a patient suffering from severe inflammation of the breast.

The Use of Alcohol.—Dr. N. S. Davis, of Chicago, Ill. (*Chicago Med. Examiner*), in an interesting paper on the "Effect of Alcohol on the Human System," says that the subjoined propositions appear to be fully established:—1st. Numerous chemical analyses of the blood and different tissues, by different experimenters, show that when alcoholic drinks are taken the alcohol enters the blood and permeates with it every part of the body. 2d. An equally reliable series of experiments have shown that the alcohol undergoes no chemical change in the system, but is eliminated through the excretory organs, more especially the lungs and kidneys, generally within a few hours after it is taken. This position has long been disputed, but it was finally fully established by the results of the well-devised and carefully executed experiments of Lallemand, Perrin, and Duroy. 3d. While the blood is circulating through the system, the alcohol diminishes the sensibility of the brain and nervous system in the same manner as other anæsthetics, and also retards the active changes in all the tissues; and consequently diminishes the sum total of eliminations or excretions in a given period of time. The numerous and patient experimental investigations of Prout, Sandras, and Bouchardet, Boker, Hammond, and others, have removed all doubts as to the truth of this proposition. 4th. By diminishing the atomic changes in the tissues of the body, and the sensibility of the nervous system, the alcohol by its presence also diminishes the temperature, the strength, and the power of endurance. That its presence in the system reduces the temperature, was fully established by the results of a series of experiments performed by himself in 1850, some of which were repeated in 1867. These experiments consisted in testing the actual temperature of the body every half hour, with a delicately graduated thermometer, for three hours after a moderate drink of alcoholic liquor. The tests were applied to both wine and whiskey. These results are confirmed by the observations of Magnus and others in Europe.

He is compelled to designate alcoholic drinks as anæsthetic and sedative,—anæsthetic to the nervous system, and sedative to the properties of the tissues. As such they are capable of being used to fill a limited number of indications in the treatment of diseases. And yet there are other well-known agents in the materia medica that will meet the same indications equally well, or even better. So true does he deem this assertion, that for twenty years he has not prescribed for internal use the amount of one pint of alcoholic drinks annually, including both hospital and private practice.

The Climate of Nebraska.—Dr. Noble Holton, of Falls City, Nebraska (*Chicago Med. Examiner*), on account of the dry, bracing, and slightly alkaline air from off the plains, considers the climate well adapted to asthmatic and catarrhal diseases. He has known a number of persons subject to these complaints entirely relieved by a residence there.

Exophthalmic Goitre.—Dr. P. S. Greenamyer, of Smithville, Ohio (*Med. and Surg. Reporter*), reports a

case of this disease which was reduced by a tonic of quinine, iron, strychnine, and phosphorus, with an alterative of the extract of dandelion, extract of May-apple, and syrup of rheum, and digitalis with aconite, continued for 18 days. From the history of the case he concludes that bronchocele and exophthalmic goitre are synonymous diseases, differing in form only as they represent different stages of a disease; if not so, the former resolved into the latter, or the latter supplanting the former. This patient has five sisters, who have ordinary bronchocele, the youngest being born with it. The patient and mother are analogous cases. Heart and congestive diseases are common on the father's side, and phthisis pulmonalis and scrofulous diseases on the mother's side.

Contraindications to Surgical Interference in Scirrhus.—The following contraindications to surgical interference in scirrhus are noted by Prof. S. D. Gross, of Phila.: 1st. When the disease is congenital or arises soon after birth. 2d. When it exists in several parts of the body, as the mamma or uterus. 3d. When there is extensive glandular involvement or marked evidence of carcinomatous cachexy. 4th. When the disease is rapidly advancing, leaping suddenly into surrounding tissues, and constituting, as it were, an acute form of malignant action. 5th. A quickened state of the pulse, arising from local irritation, augurs unfavorably. 6th. Latent cancer should not be tampered with; and finally, where serious disease of an important internal organ coexists with cancer, the impropriety of an operation is obvious.

A Substitute for the Compound Cathartic Pill.—A writer in the *Chicago Medical Journal* suggests the following formula, which he would substitute for the ordinary compound cathartic pill: ℞ Aqueous extract of aloes, podophyllin, gamboge, āā gr. xxx.; oil of caraway, m. vj. M. Ft. pil. no. lx. He has had the pills made up and sugar-coated in a very satisfactory manner by J. W. Ehrman, a Chicago pharmaceutist. The pill is small, weighing only three grains after being sugar-coated. One taken at bedtime will usually cause an evacuation from the bowels in the morning, and without occasioning either pain or nausea; but should one fail or be thought insufficient, another may then be taken.

The aqueous extract of aloes seems to contain the more cathartic principles of the drug, while it is the least irritant to the bowels, and the amount administered being so small, it does not appear to act injuriously, even in cases in which the effect of the ordinary dose of aloes is unpleasant.

Treatment of Infantile Paralysis.—Dr. Brodhurst, of London (*St. Thomas' Hospital Reports*), recommends galvanism, as furnishing the most important remedy in the treatment of this disease. The induced current is useless. A galvanic battery of great tension, but of small quantity, is needed—one having not less than fifty cells. There is little hope of recovery if the treatment is delayed six or eight weeks. When the muscles regain sensitiveness to faradization, even in a slight degree, recovery is a mere matter of patience and perseverance. Strychnia is used hypodermically to the diseased part, in addition to the local treatment by galvanism. He uses a solution of one grain of the alkaloid to fifty of fluid. The solution, aided by a little hydrochloric acid and spirit. is very dense; and if it falls below a temperature of about 70°, the alkaloid crystallizes out. It should always be warmed before use. This solution may be employed with much more freedom than a weaker one. He has frequently injected in quite young children—in fact, in babies—five and even seven minims; that is to say, one-twentieth or one-fourteenth (·05 or ·07) of a grain, at a first commencement.

On Atmospheric Germs.—Dr. Frank H. Davis, of Chicago, Ill. (*Chicago Med. Examiner*), has made some observations with the microscope, in the way of collecting organic matter or germs, in the presence of seven cases of typhoid and typho-malarial fevers, and cases of erysipelas, scarlatina, rubeola, and diphtheria; and is forced to conclude, either that the disease-producing poisons have eluded all the various contrivances devised for the purpose of bringing them under observation, or else that these influences emanate from some of the normal excretory products in which certain changes are supposed to have taken place; changes which are, however, neither apparent to the eye nor appreciable by any means yet discovered.

Management of Measles.—Dr. N. S. Davis, of Chicago, Ill. (*Chicago Med. Examiner*), considers the following formula one of the best preparations in the first stage of severe cases of measles: ℞. Syrup scillæ comp., ℥ iss; vinum antimonii, ℥ ss; tinct. opii camph., ℥ ij; tinct. verat. viride, ʒ j. M. Dose, one teaspoonful every three hours in a tablespoonful of water.

This will, usually, in the course of twenty-four hours, lessen the fever and modify the cough, while the pain in the head will at the same time be greatly relieved.

He is not in the habit of giving cathartics until the eruption is fairly out; when, if the bowels have not moved for a couple of days, he directs a mild laxative like the following: ℞. Hydrarg. chl. m. gr. v.; leptandrin, gr. ij.; sodæ bicarb. gr. v. M. One important thing to guard against is, extension of the irritation from the bronchial tubes to the lobules of the lungs; making it complicated with lobular pneumonia. When symptoms of pneumonia occur in connection with measles, the best remedy in children is a combination like the following: ℞. Liq. ammon. acetas, ℥ iss.; syrup ipecac, ℥ ss.; tinct. opii camph., ℥ j.; tinct. verat. viride, ʒ j. Dose—proportioned to the age of the child: for a child two years old, about twenty drops, though it is best to begin with ten drops; for an adult one teaspoonful. It should be given every two, three, or four hours, till the fever is controlled. In the active stage of the disease, while using this mixture, cover the chest externally with fomentations.

Dr. Davis has considerable faith in the popular notion about onions; they certainly afford more relief to the breathing than any other thing. He attributes it to the impregnation of the air which is inhaled, with the volatile oil, more than to any absorption from the surface of the chest, and thinks this application preferable to blistering.

Hypodermic Injection.—The discovery of the useful method known now as the hypodermic method—a name first given it by Mr. Charles Hunter, of St. George's Hospital—is justly due to Dr. Alexander Wood, of Edinburgh. Dr. Thos. J. Gallaher, of Pittsburgh, Pa. (*N. Y. Med. Journal*), records the fact that Prof. Nussbaum, of Munich, was injected 2,000 times before an accident happened, and this not a fatal one; and a physician in Pittsburgh, laboring under a painful affection of the heart, has been operated upon over 1,400 times, without the occurrence of an unpleasant symptom, beyond the production of two small abscesses, or rather pustules, on the arm. The accident to Prof. Nussbaum was probably due to the result either of an overdose having been employed, or the injection of a portion of the fluid into a vein.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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PROF. ALFRED STILLÉ'S ADDRESS BEFORE THE ASSOCIATION.

THE address of Prof. Alfred Stillé before the American Medical Association at San Francisco, deserves to be ranked above the ordinary efforts usually made on similar occasions. It was elaborate, scholarly, and dignified. In the latter respect it contrasted markedly with the discussions which took place during the session. If the same spirit had taken possession of the Association as pervaded the address, there would not have been the disgraceful scene which the discussion of the woman question has presented to the medical world. But this is by the way. The remarks contained in Prof. Stillé's address, in our opinion, call for more than an ordinary comment.

It would be impossible for us to refer to all the points discussed, but we shall content ourselves by presenting such as more particularly interest the profession. First in importance is the subject of Medical Education. After giving its general history, the actions of the Association in former times, and the recommendations of the Convention of Medical Teachers, he states his conviction that the profession and the schools have substantially agreed as to the necessity of a change in our system, and more than this, that almost insensibly there has been a great improvement in the manner in which medical studies are pursued compared with what was the case forty years ago.

Alluding particularly to our progress in this respect, he presents us with the following truthful picture:—

"Let it not, therefore, be supposed that the time which has elapsed since the first public expression of professional opinion in favor of an improved system of medical education has been fruitless of results; that the labor spent in demonstrating the manifold defects of the present system has been in vain; that the constantly renewed pictures of the better plan which have been presented to you have made no impression, awakened no ambition, effected no improvements. The very opposite of this is the fact. Whoever is acquainted with the medical students of thirty or forty years ago and their opportunities of gaining knowledge, must admit that both have greatly risen in the intellectual scale. Even within the limits of the official curriculum, although the courses of lectures may bear the same name, they no longer represent the same things. Who that recalls the scanty illustrations used in those days, or the absence of any whatever, in connection with the didactic lectures, and is acquainted with the profuseness with which every form of illustration is now employed by means of apparatus, preparations, models, drawings, the ordinary and the oxy-hydrogen microscope, etc., will doubt or deny that progress has been made? Who that remembers the informal and misnamed clinics then held twice a week by teachers who possessed but little skill in clinical investigation and analysis, and compares them with the daily lectures of the present day, delivered by gentlemen of the highest accomplishment in this difficult art, can doubt the reality of the advancement? Or who that knows what materials medical classes were then too often composed of, and compares them with the studious, attentive, and earnest workers of to-day, whom it is an honor to teach and a pleasure to know, will remain incredulous of the superiority of the graduates of the present time? Have we not, also, within that period, extended the course of winter lectures by nearly a month?"

Then the establishment of summer courses is referred to as a progressive movement, and is cited as an evidence of better things to come.

Although the speaker, in common with other of his brethren, believes in an improvement in medical education, he likewise is of the opinion that the profession of America is not yet ready to practically endorse such a movement. And he gives the following reasons for his convictions:—

"The minute, extensive, and prolonged studies which are made necessary for the exercise of a profession in Europe, are just as natural to the European state of society as the brief apprenticeship and superficial attainments which we require are in harmony with the rapid development and the instability of our social sphere. Even in our oldest cities, where a certain degree of permanence exists in the constitution of society, the establishment of an University upon the European model would be simply impossible. The very first condition of its success would be wanting, for no candidates for admission to its classes could be found sufficiently skilled in science and letters to enter at once the higher departments of culture in these branches of knowledge. Such an institution abruptly transplanted into our midst would be oddly out of place."

Humiliating as may be these assertions, they are, on general principles, well founded, but, while we acknowledge the fact, the greatest encouragement is offered to us for the future. If real progress is the result of the natural development of our institutions, we must, de-

spite the difficulties which may now surround us, eventually stand, as regards educational requirements, side by side with the most exacting Europeans. The only question which comes up here is, whether the profession is not ready and willing to advance a step ahead. The changes which have lately been urged are, in comparison with what might be recommended, far from being radical. The advocates for reform are satisfied to advance gradually—to be content with small gains. About the time this lecture was delivered, one of the representative schools made the long asked for change in its curriculum, by the establishment of systematic grades. If the profession fail to appreciate this movement, it will be apparent that Harvard is too far ahead of the time; but if, on the contrary, the change proves a success, that institution deserves the credit of taking the initiative. But, if Harvard's effort is premature, its failure will be only a temporary one; the time, if not at hand, must shortly come when not only one but every first-class institution in our land shall adopt the true course. Prof. Stillé does not believe that this time has come. In the first place our medical schools, compared with the population, are in the proportion of ten to one of similar institutions abroad. Here is a large number of schools which, in the absence of any law to compel them to agree upon a plan, are, in proportion to their number, prone to disagree. "The interests of the greater number forbid it imperatively," says Prof. S. This we must admit. But the fact, of itself, should not seriously affect the practical working of the plan. The representative colleges must make the move; they, as the reputed leaders, cannot afford to wait for the consent of those whom they must lead. Already one of our colleges has done this, and, as we have on a former occasion remarked, upon the success or failure of the new plan of study very much depends.

The female physician question was another subject treated of in Prof. Stillé's address. We confess ourselves agreeably surprised at the opinions he holds. Instead of a partisan, as we were led to suspect he was, we find him a noble and liberal conservative. He cannot oppose females entering the profession, and is content to allow the problem to work out its own solution. But he agrees with the majority of his brethren, that females should be educated apart from the males; that each institution has the privilege of making its own rules as to the promiscuous mixing of sexes; that the male physician has no absolute right to refuse meeting the well-educated female physician in consultation; and that the time has not yet arrived in which to decide whether a male teacher in a female medical college should or should not be admitted as a delegate to the Association. That he was right, especially in regard to the latter point, the results of the disgraceful discussion on the woman question fully attest. His conservatism regarding the colored physician question was eminently proper and becoming.

The indiscriminate use of alcoholic stimulants in medicine was also referred to:—

"To exclude so precious a medicine as alcohol from the treatment of disease, so excellent a cordial from the dietary of average health, has been found in the one case dangerous and in the other unnecessary; but to any one who knows the human heart, and its propensity to seek palliation and excuse for conscious wrong, no reason need be given to prove that the utmost vigilance should be used to avoid placing the feet of our patients upon slippery places, and giving to others who seek rather than shun the opportunity to err, at least a plausible reason for laying their temptation and its consequences at the physician's door."

Lastly, two very interesting questions were brought to the notice of the Association regarding medical diplomas. These are best presented in the speaker's own words:—

"Every thoughtful teacher must have asked himself what logical reason exists for the rule under which a candidate for the doctor's degree is entitled to a diploma, although he may be ignorant of two branches of medicine? He may completely fail to prove his acquaintance with the practice of medicine and of surgery, and may nevertheless graduate, provided he do not fail in the remaining branches which are taught in all the colleges. A provision so absurd, not to say so iniquitous, ought no longer to stand among our college rules, nor would it have done so until now, had it not become so familiar that its true features were no longer recognized. No argument against it could be more forcible than the simple statement of its existence.

"Another point is this: It is well known that some who have received the medical degree apostatize from the profession, and seek fortune in the base and criminal paths of quackery. Ought not medical colleges to possess the right to revoke the diplomas of these unprincipled men? And ought not diplomas hereafter to contain a condition of revocation if their holders abjure the laws of the profession? The unworthy clergyman is deposed by an ecclesiastical tribunal; the knavish lawyer has his name stricken from the rolls of Court but the physician may continue to enjoy his title and pursue his practice although he may have violated every rule of professional honor and every principle of morality. It is surely time that this anomaly were rectified."

There were many other points in this admirable and well-timed address to which reference might be made, but we think we have quoted sufficiently to prove that, as the President of the Association, the speaker echoed the opinions of the profession at large—opinions to which each and all are ready to agree. It would have been well if the meeting of the Association had been of a character to reflect with equal credit upon our common calling.

Reviews and Notices of Books.

UNITED STATES SANITARY COMMISSION MEMOIRS.—Surgical, Vol. ii.—I. Analysis of four hundred and thirty-nine recorded Amputations in the continuity of the lower extremity, by STEPHEN SMITH, M.D.—II. Investigations upon the nature, causes, and treatment of Hospital Gangrene, as it prevailed in the Confederate Armies, 1861–1865, by JOSEPH JONES, M.D., Professor of Chemistry in the Medical Department of the University of Louisiana, New Orleans; formerly Surgeon of the Provisional Army of the Confederate States. Edited by Professor Hastings Hamilton, N. Y. Published for the United States Sanitary Commission by Hurd & Houghton, Cambridge Riverside Press. 1871. 8vo. pp. 711.

THIS is the second surgical volume of the Sanitary Commission and the third of the series. It is in reality two volumes in one, the first comprising one hundred and forty-one pages, by Professor Stephen Smith, and the second five hundred and seventy, by Professor Joseph Jones, of New Orleans. So far the Commission have been singularly fortunate, not only in the selection of subjects, but in the choice of their contributions. The topics of the present volume, amputations and hospital gangrene, are perhaps two of the most interesting and important that could have been selected in the whole domain of military surgery, and no two gentlemen could have been selected whose ability to perform their respective tasks is better acknowledged by the profession at large.

Professor Smith contributes three papers: one on recovered amputations of thigh, one hundred and fifty-eight in number; one on recovered amputations of the leg, two hundred and eighty-seven in number; and one on ankle-joint amputations;—each set of cases being accompanied by a carefully prepared analytical table. Most of the cases were from the records of Dr. E. D. Hudson, the well-known and accomplished artificial leg-maker of this city. All the measurements taken by Dr. Hudson were made at the bedside of the patient, with unquestioned accuracy, and, as Professor Smith truly remarks, they may be "relied upon as nearly absolutely correct." The majority of the cases were treated at the U. S. General Hospital, Central Park. The tables are so arranged as to give, among other data, the point of operation, the method, length of time after the injury, cause and description of injury, length of time from amputation to examination, time after amputation when artificial limb was applied, length of stump, atrophy of proximal and distal portion, and remarks made at the time of application of the artificial limb. Under the respective heads remarks are presented of great practical bearing, especially as to the period when amputation is most advantageously performed, the methods to be preferred, the circumstances which govern the choice, and the influence of the different methods upon atrophy of the stump. His chapter on amputations at the ankle-joint in military surgery is complete as far as it goes, but the data are not sufficient to found upon them any line of argument that may lead to well-balanced conclusions. The latter applies more particularly to a settlement of the respective merits of Syme's and Pirigoff's operations. Professor Smith has done his best, however, to present the facts bearing upon the questions which of late have presented themselves, not only concerning these particular operations, but ankle-joint amputations in general, and has added another to his valuable contributions to the literature of operative surgery.

Prof. Jones writes us a volume upon Hospital Gangrene, embodying the results of a personal observation and careful study of the disease in the Confederate armies. The work is thoroughly characteristic of the author. He has already established his reputation as one of the most thorough, pains-taking, and conscientious medical writers, and his present effort adds to such a reputation. He commences in his discussion with the opinions of the ancients, and with an industry more than remarkable has presented a mass of facts never before accumulated under the same heading. The accuracy with which the cases have been reported, the care in the statement of all points bearing for or against the author's personal views, give the labors of this pains-taking gentleman a peculiar value. He has proved that bad ventilation, insufficient food, fatigue, and the other circumstances inseparably connected with a hard-worked, crowded, and poorly fed army, are the prolific predisposers to the scourge; and that the disease "is due to the action of an irritant organic poison, which, after the manner of a ferment, is capable of inducing such decomposition in the tissues and the blood that all development of the cellular elements of the liquor sanguinis into cells or fibres, or into pus, is arrested." The latter conclusions were reached as the results of careful microscopical examinations. Taking the lesson of treatment from the causes of the disease, he advises free ventilation, good food, clean dressings, avoidance of all chances of contagion, etc., etc. In the way of medical treatment he is in favor of free stimulation, and the local applications of nitric acid, tincture of sesqui-chloride of iron, with the disinfectant stimulating applications of chlorinated soda, permanganate of potassa, nitro-muriatic, acetic, or carbolic acids. No mention is made of the beneficial effects of the local application of bromine. This does not seem to have been used by the Southern surgeons. We believe that the experiences of surgeons of the Union army who have given this remedy a fair trial would sanction its use to the preference of even nitric acid. Prof. Jones adds some admirable chromo-lithograph representations of the different appearances of Hospital Gangrene, in gross and under the microscope. In conclusion we would state that, in our opinion, this volume as a whole is the most creditable of any yet issued by the Commission; that Profs. Smith and Jones have so well performed their respective tasks as to merit the congratulations and thanks of every military surgeon. The work is handsomely printed and substantially bound.

A PRACTICAL TREATISE ON THE DISEASES OF INFANCY AND CHILDHOOD. By THOMAS HAWKES TANNER, M.D., F.L.S., Author of Practice of Medicine, etc. Third American Edition. From the last London Edition. Revised and Enlarged by ALFRED MEADOWS, M.D., London, Member of Royal College of Physicians, etc. Philadelphia: Lindsay & Blakiston, 1871. 8vo. pp. 559.

THOSE who have become acquainted with the other works of Dr. Tanner, need not be told that the present one is of a thoroughly practical character. The substance of the present volume is essentially the same as the previous edition, but has been subjected to a re-arrangement by Dr. Meadows, which may enhance its value for systematic reference. It is divided into four parts. The first treats of the Physiology and Pathology of Childhood; the second of General Diseases; third of Special Diseases; fourth, Injuries, Malformations, and Deformities; and lastly, the Appendix of formulæ has been much enlarged and re-arranged.

The descriptions of the different physiological and pathological conditions of childhood are admirably and clearly given, and the deductions bearing upon

treatment are sound, conservative, and philosophical. Despite the array of formulæ in the appendix, polypharmacy is not advocated, but the choice of a given prescription is left to the discretion of the reader. The error, if there be any, is rather on the side of expectancy. Dr. Tanner would seem to say: "When you are not sure what is best for a sick child, give nothing but fresh air, good food, cod-liver oil, and iron, and you will seldom go wrong." Throughout the whole treatise one thing seems to be held in view, the desire to establish sound principles concerning the philosophy of infantile therapeutics; and the practitioner who studies well its pages insensibly finds himself a rational interpreter of indications and a consistent and careful prescriber.

The views of Dr. Meadows in regard to diatheses, their controlling influences on the cause of the various acute diseases, and *vice versâ*, are of immense value to the thoughtful and discriminating physician as affording the clue to successful treatment. The article on Skin Disease has been revised by Dr. Tilbury Fox, while Mr. R. B. Carter has entirely re-written the chapter on Diseases of the Eye; each of these additions, with those made by Dr. Meadows on diatheses, enhances very much the value of the work.

To such as are in want of a thoroughly trustworthy guide for the treatment of Infantile Diseases we would unqualifiedly recommend this work.

MINNESOTA AS A HOME FOR INVALIDS. By BREWER MATTOCKS, M.D., President Board of Health, St. Paul; Physician to St. Joseph's Hospital. Philadelphia. J. B. Lippincott & Co. St. Paul, Minnesota, D. D. Merrill, Randall & Co. 1871. 12mo., pp. 200.

THIS little work is written by a conscientious and competent physician (long a resident of St. Paul), for the purpose of showing the advantages and likewise the disadvantages of Minnesota as a home for invalids. Intended more for the general than the professional reader, it is written in a lively, pleasant, and entertaining style. The facts concerning the character of the climate, etc., deserve the consideration of every physician whose advice may be sought by a consumptive having the disposition and the means to change his residence.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

March 8, 1871.

DR. A. L. LOOMIS, PRESIDENT, in the Chair.

DR. ROGERS remarked that he had examined the tumor of scapula presented by Dr. Hamilton at the last meeting, and found it to be soft enchondroma.

GUNSHOT WOUND OF HEART.

DR. FINNELL exhibited a specimen of gunshot wound of the heart. The missile, which was a bullet, entered the chest at the fifth intercostal cartilage, one inch to the left of the median line, passed through the cartilage, pericardium, diaphragm, left lobe of liver, lodging in the intervertebral cartilage between the eleventh and twelfth dorsal vertebræ. The pericardium was filled with blood. Death was almost instantaneous.

FIBROMA OF SCROTUM.

DR. POST presented a small fibroma removed from the subcellular tissue of the scrotum. The patient was thirty-nine years of age, and was married. The tumor first made its appearance about eight or nine years ago. It had the feel and shape of a small testicle. Referred to the Microscopical Committee.

FIBRO-CELLULAR TUMOR OF UTERUS.

DR. NOLAN exhibited portions of what appeared to be a large fibrous tumor of the uterus, which he removed by operation from a woman three weeks after a miscarriage at the fourth month. The specimens were, on motion, referred to the Committee on Microscopy.

TUMOR OF BRAIN WITHOUT SYMPTOMS.

DR. JACOBI presented specimens on behalf of Dr. Rodenstein, of Fordham, removed from the body of a boy, aged 9 years, who had died suddenly. It was stated that the boy had been quite well up to the evening before his death. He was then taken ill, and wanted to go to bed. He complained simply of a chill, which, after he was put to bed, relapsed into a chilliness. He wished to be taken to the bed of his brother to get warm, and in the morning was found dead. The attending physician, on inquiry, was able to ascertain that at times the patient suffered from what was considered fainting spells, but which might have been chills, or might have been convulsive attacks. This was all that could be learned of his previous history.

At the autopsy, when the abdominal cavity was opened, Dr. Rodenstein found very strong attachments between a number of intestinal convolutions, between them and the liver, and between the liver and the diaphragm. He also discovered a number of tumors between the diaphragm and liver, which proved, as did others of a similar nature around the renal artery, to be transformed glands. The right kidney, which was the only one found, was disproportionately large and was much congested. Imbedded in the kidney tissue were numerous hard and discolored masses, mostly confined to the tubular substance, the larger ones being softened in their interiors. These softened portions were made up of broken-down material and pus, the harder portions were composed mostly of fibrous tissue, with a few spindle-shaped cells. Pressing upon the pons varolii and the medulla oblongata was a tumor of similar formation to those already described. Dr. Jacobi was inclined to the opinion, from the situation of the growths, their general character, etc., that they were syphilomata. One point of interest was the existence of the tumor of the brain for an apparently long time without symptoms.

DEATH OF NEW-BORN INFANTS.

DR. LOOMIS presented the heart and lungs of a well-formed, fully developed child that died fifty-seven hours after birth. For thirty-six hours after its birth nothing abnormal could be detected. The mother who bore it had a perfectly easy and natural labor, lasting about six hours. During the second night of its life the mother noticed that the infant began to moan, that its respiration had changed, becoming short and spasmodic. The second morning, when Dr. L. saw the patient, its color was deeply tinged with yellow, there was a good deal of capillary congestion of the extremities, and a slight duskiness of the lips. The respiration was moaning and spasmodic. Whenever the position of the child was changed it would cry out as if in pain.

After birth Dr. Loomis examined the lungs, heart, and abdomen of the child during the first day, and found nothing abnormal. This examination was repeated by Dr. Metcalfe with the same result. During the first twenty-four hours it vomited occasionally, and once or twice there was a darkish color in the matter vomited

resembling somewhat the change which blood undergoes after being in the stomach.

The parents of this child were fine specimens of health. The father is about thirty-eight, the mother twenty-eight. They have no hereditary taints, and both belong to a long lived and very robust race. They have been married five years. During the first two years of her married life the mother of the child had three miscarriages, each at three months. Two years ago she gave birth to a full-term and apparently healthy child. Twenty-four hours after the birth of this child it began to vomit blood in large quantities, and continued to do so for six hours, when it died. Blood also passed per anum. Eight months after the birth of this second child the mother miscarried again at three months. During the time she was carrying the child from which the specimen was taken she had more than the usual amount of nausea and vomiting. So severe was this latter symptom that during the last month she was compelled to remain in a recumbent posture. The father denies ever having had syphilis. The mother has no organic disease. Her urine had been examined repeatedly, but no albumen nor change in specific gravity had been found.

The autopsy was made fifteen hours after death.

On opening the chest, the right pleural cavity was filled with six ounces of coagulated blood. Both lungs were the seats of extensive pulmonary apoplexy. The hemorrhage was not lobular. These hemorrhages occupied more or less of both lungs; and along the edges of the hemorrhages, and in the region of them, were found points of vascular emboli, and there were, besides, numerous subpleural air sacculi. On the under surface of the middle lobe of the right lung was the opening in the pleura through which the hemorrhage occurred. A little distance from this was to be seen a large cavity.

The heart was perfectly normal, as were all the other organs save the lungs.

In conclusion, Dr. Loomis remarked that the case was a very rare one to him, he never having seen the like before. In hunting up the English literature of the subject, he had succeeded in finding but one similar case on record, that was related by Walsh.

PULMONARY APOPLEXY AS A CAUSE OF DEATH IN THE NEW-BORN.—FATTY DEGENERATION OF PULMONARY VESSELS, ETC.

Dr. Jacobi, in connection with that case, remarked that he had seen a similar one about fifteen years ago. It was the first child of a family which in quick succession in the course of six or seven years, lost their first four children. This child had been born apparently well, but six hours afterwards mucous râles showed themselves, and very soon an œdematous fluid, colored with a bloody admixture, was thrown up. By and by there was a very little white admixture and more and more bloody, and the child died pretty suddenly about twelve or fourteen hours after the first symptoms of hemorrhage. At the autopsy the bronchi were filled with bloody froth, and a number of apoplectic effusions were dispersed through the lungs. There were no hemorrhages in any other part of the body.

In children who died within three or four days after birth, it was common to find punctate ecchymoses in the pleura and peritoneum, and especially that covering the liver. These were unconnected with the causes of death, and were believed to be the results of the sudden change in the circulation caused by the tying of the cord. But in the large hemorrhages, such as occurred in pulmonary and cerebral apoplexies, he believed that the cause was to be sought in a fatty degeneration of the blood-vessels of the part. This fatty degeneration had its origin, in turn, in an endometritis in the mother.

Dr. Loomis remarked that previous to the last time this woman became pregnant he had examined her, and found the uterus perfectly normal, with the exception, perhaps, of a trifling cervical catarrh.

Dr. Jacobi referred to the frequency with which fatty degeneration of the placenta accompanied endometritis, and in regard to a marked effect which this condition had upon the child. He referred to the case presented ten years ago to the Society by the late Dr. Elliot. In that case the child was the subject of such complete fatty degeneration that it could only with the greatest care be delivered piecemeal.

Dr. Weir presented the results of lithotripsy in the shape of seventy-six grains of fragments of a urinary calculus. The patient, aged fifty-eight, had suffered from stone for a period of eight months.

The several operations extended over a period of five weeks. After the first operation the patient was confined to his bed for a week. At the subsequent sittings even this precautionary step was not deemed necessary.

The case in itself was not particularly remarkable, and the specimens were presented more for the purpose of exhibiting in connection with them Sir Henry Thompson's new lithotrite. This instrument had been constructed for the purpose of grasping the small fragments left in the bladder, and causing their discharge through a canal formed by the two jaws.

PISTOL WOUND OF THE CHEST.—PYÆMIA, ETC.

Dr. Sayre exhibited a pistol bullet which he had removed by operation from the eighth rib of the right side of a gentleman, a resident of Pennsylvania, accidentally shot on the 22d of Feb. The missile entered one inch to the left of the median line, about four inches above the umbilicus, and was lost. The patient vomited a good deal of blood, and some of the contents of the stomach escaped through the wound. His friends thought him dying, and it was not until he had lasted four days that Dr. Sayre was telegraphed for. When he arrived on the morning of the fifth day, he discovered a dark fluctuating track from the lower margin of the pectoral muscle to the crest of the ilium A free incision was made into this, discharging a large quantity of pus and gas. The bullet was picked out of its bed in the eighth rib. The patient lived until March 3d, when he died from exhaustion, the result of pyæmia.

The post-mortem examination was made by the attending physician, who stated by letter that the track of the ball was through the stomach and liver.

Dr. Sayre thought that this case illustrated the necessity of early surgical interference under such circumstances. He was convinced that the pyæmia might have been prevented if the missile had not been left so long in its place of lodgement. There was very little peritonitis in the neighborhood.

Dr. Hart referred to a case of similar wound, in which the ball entered to the left of the median line, passed through the stomach, and lodged over the kidney of the same side. The patient vomited blood. The ball was extracted half an hour after the injury. A speedy recovery was the result.

The Society went into executive session.

STATED MEETING, MARCH 22, 1871.

Dr. A. L. Loomis, President, in the Chair.

Dr. Rogers reported the uterine tumors presented by Dr. Nolan to be fibro-cellular in character.

Dr. Loomis stated that the specimen of pulmonary apoplexy presented by him at the last meeting, had

been examined by Dr. Janeway, who stated that fatty degeneration of the walls of the capillaries existed, but not to a sufficient degree to account for the hemorrhage.

THE RESULTS OF TREPHINING.

Dr. Bahan presented fragments of the frontal bone removed by the trephine from a male aged 28 years, who had received, September, 1868, a severe compound complicated fracture of the skull from the kick of a horse. The line of depression was little over an inch. The patient recovered without a bad symptom.

ARTERIAL MURMUR WITH FIRST SOUND AND DISEASE OF THE AORTA.

Dr. Finnell exhibited a heart taken from the body of a colored man aged thirty-five. In the course of the last few years of his life he had had several very severe attacks of acute articular rheumatism, each of which was attended with marked precordial pain. Although he recovered from the rheumatisms, he was constantly subject to pain around his heart. He applied to Dr. Finnell about two years ago, when auscultation detected an aortic regurgitative murmur. Being in active employment as a hotel attendant, the pain and palpitation annoyed him so much that he took to gin-drinking as a palliative measure, and soon became a confirmed sot, losing his situation and becoming very much reduced. A few weeks ago, while passing through the streets, he was taken ill, and acting strangely, was picked up by a policeman and locked up in a dark cell. In the morning he was found dead.

Dr. Finnell made the autopsy the day following, and was surprised to find that the valves were perfectly healthy, nothing abnormal being found save an atheromatous deposit in the aorta immediately above the valves. There was no calcification of the coronary arteries. The brain was not examined. The case was interesting in that, notwithstanding the existence of a well-marked organic murmur, no disease of the valves was discovered.

Dr. Sands thought it possible that the murmur might have been anæmic in character.

Dr. Loomis thought that the change in the artery was sufficient to give rise to the murmur. He believed that many of the murmurs heard with the first sound were produced in the artery rather than in the valvular orifice. In almost all these cases there was a tremulous impulse in the right side of the sternum.

Dr. Finnell remarked that such a tremulousness was very distinct in this case, and constituted one of its peculiarities.

CUTANEOUS HORN FROM CALF OF LEG.

Dr. Rogers presented a specimen of cutaneous horn removed by operation from the calf of the leg of an old man who had thirty years ago received an injury of the part. At first a black, hardened speck appeared, and slowly increased. It was from time to time removed, when it would obstinately reproduce itself. At the time Dr. R. saw it, it was nearly two inches in diameter, and its hard base was causing so much irritation in the surrounding parts that it was thought advisable to remove it along with the follicle in which it had been produced. Its appearance after removal was in every respect characteristic. The wound healed without much trouble.

A second specimen by Dr. Rogers was a well-marked case of epithelioma of the penis removed by operation from a patient sixty-five years of age.

SEQUESTRA OF POST.-INTER-CONDYLIC SPACE OF FEMUR.

Dr. Sayre presented a portion of sequestrum removed by operation from the right femur of a boy aged five years. About six years ago, when Dr. Sayre was in San Francisco, he was asked to assist in an amputation of the thigh for serious disease of the knee-joint. The patient, the boy referred to, had previously injured the lower portion of his femur by falling head first through a ladder. In his descent he was arrested by the expanded portion of the condyles of the femur, which engaged itself after the manner of a button in a button-hole between two of the rounds of the ladder. Serious inflammation followed, and eventually it was concluded, in the belief that serious disease of the joint existed, that amputation of the thigh was the only means to save life. On examining the case Dr. Sayre was of the opinion that no disease of the joint existed, and that there was an exfoliation of that portion of the femur between the two diverging lineæ asperæ. An exploratative operation was made, in the shape of a free incision in the outer aspect of the thigh, and the sequestrum was removed. The child made a perfect recovery, and was exhibited to the Society. He could walk without a halt, and the motions of the knee-joint were almost perfect.

He had seen four similar cases in which the exfoliation was confined to this portion of the femur, and in which the cause was uniformly the same, viz.: the buttoning of the condyles of the femur between two rigid points, thus arresting a headlong fall. In all he believed that the pressure of the muscles upon the periosteum of the sharp edges of the bony ridges either tore or so bruised the membrane at those points as to induce a destructive inflammation. The first case occurred to him eleven years ago, and was in the practice of Dr. Clark of Staten Island. The patient was a boy aged fourteen. The injury was received by falling off a haystack, and in his descent catching the condyles between the two prongs of a hay fork. A second case was caused by the condyles being caught in a narrow hole. The other two cases were similarly injured. In all these a sequestrum more or less triangular in shape was removed from the posterior surface of the expanded condyles, and in all recovery with a useful limb was the result.

He also presented the amputated leg of a child thirteen years of age, an inmate of the Randall's Island Hospital. He was called to see the patient by Dr. Dunster. Six weeks previous to admission the little fellow had fallen and produced a diastasis of the upper extremity of the tibia. Inflammation of the part involving the joint had occurred, for which poultices were kept assiduously applied, by ignorant parties, converting the limb from the knee downward into a bag of pus. This was opened when the case was admitted, discharging a large quantity of broken down material.

Dr. Sands could not understand how it was possible for a surgeon to mistake such a common disease as necrosis of the lower end of the femur for serious joint disease requiring amputation. In cases of necrosis there were no physical symptoms which corresponded to disease of the joint in even the earlier stages, much less when the morbid action had been supposed to have progressed to that alarming extent as to make amputation imperative.

Dr. Sayre agreed with Dr. Sands in reference to the points of diagnosis, but imagined it might in some instances in which the disease was in its incipiency, with the attendant diffuse swelling of the joint, be mistaken by an inexperienced observer for morbus articuli.

Dr. Post in this connection referred to a case which occurred upon the banks of the Hudson. The physician in attendance had sent for a surgeon to amputate

the thigh for disease of the knee-joint, but on the arrival of the surgeon it was discovered that the knee was only painful from disease in the hip above.

FIBROMA OF EXTERNAL LABIUM.

Dr. Post exhibited a fibroma of the external labium of a female, which he by a strange coincidence removed three days after the one presented at the last meeting, which had been taken from the scrotum of a male.

Dr. Van Geison referred to a case of similar tumor removed from a similar locality, in which secondary hemorrhage occurred from one of the labial arteries.

DRY GANGRENE OF FOOT—AMPUTATION—THE ARTERY CONSTRICTOR.

Dr. Hart presented a specimen with the following history:

J. T., aged 55, a Quaker. About Feb. 1st received a contused wound on the crown of the head, about two inches long, extending down to the bone, from a stake in a bale of hay which fell on him. The wound was dressed by a druggist, who hermetically sealed it by straps of adhesive plaster. The dressing was undisturbed for four days, when he began to experience pain in the wound, and called in his family attendant, who found that erysipelas had invaded the entire cellular tissue of the scalp, converting it into a large bag of pus. He removed the plaster from the wound to evacuate the collection, and also made an incision over the right zygoma to facilitate drainage. On the evening of the sixth day intense pain began in the right foot, which lasted about ten hours and then abated. The following morning, when his physician saw him, he found that the tissues of the top of the foot were attacked by dry gangrene. Two days after an abscess containing about two ounces of pus formed below the left malleolus. Three days after, when I was called in consultation, I found the line of demarcation established, and removed the slough, which was two and a half inches wide by seven and a half long, and was composed of all the tissues down to the bones, leaving the first range of metatarsal bones exposed and necrotic. All the extensor tendons of the toes were sloughy. (The ankle and joints of the toes subsequently opened.) The skull at the seat of injury was found bared of periosteum to the extent of about the size of a silver quarter. To afford the bone a chance to recover without exfoliation, I made two counter openings low down on the back of the head, and closed the original wound by paring the edges and uniting them by silver-wire sutures. Feeling confident that the destruction of the foot depended on some other cause than the injury of the head, I inquired about any antecedent illness he might have had, and was assured by him that he had never been ill a day since the age of 18, when he had had a slight attack of variola. He had never had either rheumatism or gout. On March 9th, his head being almost entirely healed, and his general condition favorable, I amputated the leg at the junction of the lower and middle third by the modified circular method. Some little difficulty was experienced in compressing the artery in the groin with the tourniquet, so the thumb of an assistant was substituted. In closing the vessels of the stump I applied Dr. Speir's artery compressor to the two tibial arteries, which sealed them effectually, and should have used it on the peroneal, but the artery and vein were so closely adhered together that they could not be separated. To this vessel I applied a silk ligature, the first of which cut through, but the second, which included some muscular fibres and the vein, arrested the bleeding. The arteries here shown were removed from the amputated portion, and exhibit a very extensive calcareous disease. No accident so far in the progress of the case has occurred.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 18th, 1871.

Dr. E. R. Peaslee in the Chair.

Subject: "Treatment of Cicatricial Contractions after Burns of the Face," by Gurdon Buck, M.D.

Pending a quorum, the President called upon Dr. Truehart, of Galveston, Texas, for the exhibition of the following instruments, recently made in Vienna and Berlin, Germany, after a plan of his own devising: 1st. An ingenious instrument, mostly of glass, for transfusion of blood. 2d. An apparatus for producing artificial respiration, the motive power being the lungs of the operator. It can be inserted into the nostril or glottis of the patient, and would be also a valuable stomach-pump. 3d. The 365th modification of the obstetrical forceps, rendering the rotation of the blades to the short axis an easy procedure. The locking of the instrument is made expeditiously by the peculiar construction of its lock. The steel handles being covered with hard rubber, infection thus is avoided. 4th. A trepan, the teeth of which cut right and left, instead of the old method. 5th. An effective and well-curved craniocast, combining lightness and strength.

Dr. Adams, the Corresponding Secretary, read letters from Drs. George B. Wood, of Philadelphia, and Thomas J. Bowditch, of Boston, thanking the Academy for their election as Honorary Fellows.

The President acknowledged the receipt of copies of the Proceedings of the Royal Medical and Chirurgical Society, Edinburgh Medical Journal, and a Catalogue of Useful Books.

Dr. Charles P. Russell was elected a Resident Fellow of the Academy.

Dr. Gurdon Buck then offered some remarks on *the treatment of cicatricial contractions after burns of the face*, and exhibited the patient, a boy about four years old, who had been under his care since November last. Dr. Post also saw the patient in consultation. The child was severely burned, when about two years of age, about the lower lip, chin, neck, and breast. Contraction ensued, which brought the chin down near the sternum, and to the left side. Saliva constantly flowed from the mouth when first seen. Four ingenious operations were made while the child was in a state of etherization, and a brace was applied to keep up a constant outward contraction. A stiff padded leather stock, or band, was attached to the upper portion of the contrivance, and graduated by means of a screw; another great advantage of the instrument being the free play of the chin, the patient being compelled to raise the head to avoid the stock. The patient had worn the brace constantly, with the exception of at night, and the speaker proposed to keep it on part of the time this summer, when out of bed, thus maintaining the parts until all contraction is avoided.

The contour of the chin is now restored to its former character, the cicatricial surface is smooth and flat, and the saliva no longer flows involuntarily from the mouth.

Dr. Buck observed that the free division of all cicatricial formation was advocated by Dupuytren and Dr. Earle. Dr. J. H. Janes, of Exeter, has also used an instrument in the treatment of these cases, and in most of them a permanent cure was effected. (Vol. xiii. Medico-Chirurgical Transactions.)

The speaker's apparatus was thought to be bette

than Dr. Janes's brace. For the promotion of an artificial scab collodion was recommended; thus avoiding the great inflammation which generally follows the ordinary treatment.

A child two and a half years old, with a contraction of the ring and little fingers, is now under the care of Dr. Buck. The bands were divided and the wounds covered with collodion. He thought that the hand would be restored to its original functions.

In concluding his remarks, the author stated that the operation for removing these deformities was held in too low repute, and for that reason Dr. Janes had issued his pamphlet to raise it in the estimation of surgeons.

Dr. Truehart being called upon, remarked that, in the late Franco-Prussian war, he had made some sixty-three or sixty-four transplantations of skin in cases of gangrene and much loss of substance from gunshot wounds, and had met with considerable success.

Dr. Buck, in answer to the query of the President, whether transplantation would have been advantageous in his case, replied negatively.

Dr. J. C. Peters said that Dr. Buck's case was a peculiarly interesting one to him, as the patient was first attended by him, an instrument being applied soon after the injury. The instrument was thrown aside afterwards by the parents, contrary to his advice, and their friends advised that the patient should be taken to Europe; but he recommended a consultation of Drs. Buck, Post, and Van Buren. The speaker added that the child was properly treated when under his care, as he applied the instrument himself; and the patient would have done better at first, if his contrivance had been allowed to remain on.

In regard to the application of the instrument, Dr. Buck stated that energetic action was required, and the brace should be put on early, as that was the time to watch the patient.

Dr. J. C. Hutchison inquired of the author of the paper, if it was his plan to incise the cicatrix entirely. He recollected in a case of Dr. Janes' that the chin was brought down to within an inch of the sternum.

Dr. Buck replied that in his case he desired to save the cicatrix; but in those cases reported by Dr. Janes he should remove everything.

Dr. Hutchison asked him what preparation of collodion he used in his operations.

Dr. Buck said he applied the ordinary collodion. An allusion having been made to the very successful operations of club-foot reported by Dr. Muter, of Philadelphia, the speaker stated that he wished he could have more confidence as to the results in those cases. It was one thing to exhibit nice cuts of this class of cases, and quite another thing to view the results on the patients.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, June 5th, 1871.

Dr. Abraham Jacobi, President, in the Chair.

The President announced the admission to membership of Drs. Milo A. Wilson, Charles E. Simmons, R. C. M. Page, P. Brynberg Porter, Richard Toscano, E. Darwin Hudson, John R. Cypert, Wm. H. Johnston, Emily Blackwell, Augustus Wohlfarth, Patrick W. Cremin, Jacob D. Rogers, and Erskine Mason.

The Report of the Committee on Intelligence was read by Dr. Castle; that of the Committee on Meteorology by Dr. Goodwillie; and that of the Committee on Diseases by Dr. Raborg. The last gave a comparison of the statistics of contagious diseases for April and May, showing a decrease in the number and violence of the cases of small-pox, scarlatina, and measles. It noted also the important fact that, in upwards of fifty thousand vaccinations performed by officers of the Health Board this season, three-fifths of all the secondary vaccinations had proved successful.

A NEW THEORY OF SYPHILITIC INFECTION.

Dr. F. N. Otis read a valuable paper with the above title, illustrating it by diagrams. The writer's sketch of the clinical history of syphilis, as well as his *résumé* of the views of prominent syphilographers, from the earliest discussion of the subject to the present time, regarding the nature of the virus, and the mode of its introduction into the system, our limits compel us to omit, referring the reader to the full paper in the *Medical Gazette* of June 10th. Summarizing these views he says:

"1. That, in regard to the origin of syphilis, the accumulated learning of centuries affords but the most unsatisfactory speculations.

"2. That nothing is yet positively known of its nature. Accepted as a virus, with a power to contaminate the blood, it is known only by its effects.

"3. That nothing is yet positively known of the mode by which the human system is infected by it. We may accept, as the generally received opinion, the expression of Lancereaux, that 'the agents of the absorption of the syphilitic poison are those of other substances, namely, the venous capillaries, and, more especially perhaps, the lymphatic vessels.'"

But, while giving this as the received opinion, the writer states his own very decidedly, that the virus consists essentially of disease-germs similar to those described by Beale in the secretions of vaccinia, variola, etc., and that it is absorbed exclusively by the lymphatics.

The disease-germ of Beale, which is so minute as to require a magnifying power of one or two thousand diameters, is held by its discoverer to "consist of a peculiar kind of living germinal matter, the smallest particle of which, when supplied with its proper pabulum, will grow and multiply, giving rise to millions of little particles like itself, each having similar properties and powers." It is "living matter which has descended from the living matter of health, but which has acquired the property of retaining its life under new conditions," and has become possessed of such energy that it will grow and reproduce its like even when removed from the seat of its development and transferred to another situation, provided only it find the proper nutriment. Besides these properties, it has the power of amœboid movement like that demonstrated by Cohnheim in the white corpuscles of the blood.

Turning now to the lymphatic vessels, the writer adopts Robert Willis's theory, that one of their essential functions is to abstract from the blood its more fluid portions, thereby rendering it thicker in the veins than in the arteries, and enabling the venous radicles to fulfil their office of absorption by endosmosis. This absorption of the watery part of the blood by the lymphatics takes place, however, as pointed out by Von Recklinghausen, not directly from the blood-capillaries, but through the medium of the tissues these supply; and this in order not only to diminish the pressure, and increase the consistency, of the blood in the veins, but also to diminish the pressure of the serous fluid bathing and nourishing the tissues, by constantly abstracting a certain portion of it, and so making room for its constant renewal through the transudation of a fresh supply from the blood-capillaries. To this end, the ultimate ramifica-

tions of the lymphatic system are always separated from those of the blood-system by intervening tissue—tissue in which the current of serous fluid must evidently be setting from the blood-vessels toward the lymphatics.

Suppose the syphilitic secretion applied to an abraded surface of skin or mucous membrane. "We have now two separate influences, which may act separately or conjointly, to carry the disease-germ into the lymphatic circulation: 1. The current of tissue-fluid which constantly sets towards the lymphatic vessels. 2. The power of amœboid movement of the germ itself." If these be deemed insufficient, we may bring in the aid of the nomadic white blood-corpuscle, which can entrap in its extending arms, and incorporate with itself, not only germinal matter but even foreign substances, and thus carry them along with it in its wanderings. The paper argues that the disease-germ, whether by itself or in connection with the white corpuscle, will, in its amœboid progress, choose its course only toward the lymphatics, and not toward the veins, because it would not find in the latter its proper pabulum. The probable local action at the point of inoculation is given as follows:

"1st. A coagulation of the superficial tissue-fluids. A dilatation of the superficial blood-vessels. A consequent slowing of the circulation. The coincident attraction of a variable number of wandering white blood-corpuscles—phenomena associated with any irritation of living tissue.

"2d. An entrapment of the syphilitic disease-germ by the wandering white blood-corpuscle (through its amœboid movement), and the incorporation of the disease-germ into the substance of the white corpuscle.

"3d. An appropriation (as pabulum) by the disease-germ, of the substance of the white corpuscle, and the consequent development and multiplication of the disease-germ *in* the white corpuscle.

"4th. A consequent necessity of the white corpuscle for an increased supply of pabulum from the tissue-fluids, the absorption of which produces a rapid increase in size, and an abnormal tendency to fission or multiplication, of the white corpuscle, through whose substance the multiplied disease germs are now disseminated.

"5th. Through the multiplication of the white corpuscle, thus impregnated by the syphilitic disease-germs, the spread of the syphilitic influence at the point of inoculation, and thence into the adjacent natural channels of the white corpuscle, namely, the lymphatic canals, through which, by aid of the lymphatic current, they are carried along until arrested in the substance of the nearest lymphatic gland.

"While, however, certain of the wandering white corpuscles, incorporated with the syphilitic disease-germs, are stimulated to abnormal proliferation, and go on to spread their influence beyond the sphere of this immediate action, certain others, whose predestined office is that of connective-tissue cells, become arrested in the coagulated albuminous medium at the point of inoculation: become fixed, and develop into connective-tissue fibrillæ, after the manner, described by Billroth, of the formation of normal cicatricial tissue, between which, and the induration associated with and considered peculiar to the primary syphilitic lesion, there appears to be but the difference of exaggerated formative power."

* * * * *

"The influence of the disease germ, as it eventually comes to be felt in the lymphatic vessels underlying the inoculated point, is in accordance with its accepted power to separate and organize the fibrin contained in the lymph, and thus to add rapidly to the induration previously inaugurated in the connective-tissue corpuscles outside the lymphatic canals and underlying the abraded surface."

* * * * *

"In the foregoing plan or theory of syphilitic infection, it will be observed that an important feature of syphilis, accepted and insisted on by all authorities, is entirely omitted, namely *the period of incubation*. This period of incubation is defined as 'the interval of apparent rest,' occurring between the inoculation of the syphilitic virus in a given subject, and the appearance of the specific local lesion at the inoculated point; which lesion is stated to be the result of a local reaction consequent upon a general infection of the system—this occurring at the point of inoculation alone."

The writer reasons that, as there is such utter want of uniformity in the length of this so-called period of incubation—there being recorded differences of thirty-six days in cases of experimental inoculation, and of even seventy days in carefully observed clinical cases—it cannot be compared with the period of incubation of the exanthemata, for example, and cannot be regarded as indicating constitutional infection at the moment of inoculation. Moreover, in certain cases showing a very brief period (one of them only thirty-six hours) the lesion was found at the frenum. "Now, it is at just this point that the superficial lymphatics of the glans penis approach nearest to the surface, rising, in this especial locality, in some instances, according to Belaieff, to a point just underneath the epithelium.

"Farther observations, which shall result in connecting a brief period of incubation with the occurrence of the initial lesion at the anterior and inferior extremity of the glans penis, may yet be made, and afford a corroboration of my own view of the incubative period of syphilis, viz., that it is the period required for the syphilitic disease-germ to traverse the distance from the point of inoculation to the interior of a lymphatic vessel, by the processes described in a previous part of this paper. Consequently, according to this view, syphilis is a local disease up to the period of the entrance of the disease-germ into a lymphatic canal; and I am also of the opinion that, instead of infecting the system at large, even at this time, it passes on, through the lymphatic vessel, into the parenchyma of the lymphatic gland with which this is connected, where it is retained by conditions arising from the character of the parenchyma of the gland, and the coagulation of its tissue-fluids, for a period corresponding to the so-called secondary incubation of syphilis, recognized by all authorities as taking place before the constitutional evidences of the disease are ever manifested.

"In conclusion, I would state my belief in the possibility of a satisfactory explanation of some of the later manifestations of syphilis, through causes wholly dependent upon interference with the *lymphatic* circulation; and that further researches in the direction I have indicated will corroborate my claim, *that it is the germinal element of the blood and tissues alone that is primarily affected in syphilitic disease;* that it is through the *lymphatic* system alone that the syphilitic influence is propagated to parts remote from the point of inoculation; and, finally, that it is to deposits of fibrin, organized through the syphilitic influence in and around the lymph-vessels and lymph-sacs, in the earlier stages of the disease, and to its subsequent contraction, that the lymphatic obstructions, resulting in various external and internal lesions, in the later stages of the disease, are chiefly due."

Dr. L. Weber thought that, if the disease were, as Dr. Otis had maintained, a strictly local one for a certain period after inoculation, then it should be possible to extirpate the chancre successfully, and so prevent constitutional infection. But in the British army this had been tried extensively without any such happy result.

Dr. Otis did hold the position that extirpation of the part inoculated, if performed early enough, would effectually prevent any infection of the general system. Quite a number of cases were recorded by Lancereaux, where experimental inoculation with virus unquestionably syphilitic had been made, and the sores thus produced extirpated; and in a certain proportion of these cases the disease never appeared.

Dr. Weber wished to make a slight contribution to the question of the duality of the virus in chancre and chancroid, and related four or five cases in which secondary and tertiary symptoms of syphilis had appeared, while the primary sore had failed to exhibit the characteristic induration. In some of these cases the interval between the primary infection and the occurrence of the constitutional symptoms was very great. In others, he had not himself examined the seat of the lesion until the secondary symptoms brought the patient to consult him.

Dr. R. W. Taylor related two cases having a very short primary incubation. In the first, a married man, who had been some time absent from his wife, had his only connection with a woman of the town on a Sunday. The next day he came to the speaker's dispensary-class, showing, just at the meatus, a spot twice the size of a pin's head, where the mucous membrane was not torn at all, but its epithelium had assumed a somewhat silvery aspect. It had not been touched with caustic. Prof. Boeck, who was present, recognized the appearance as one which he had several times seen in the initial lesion of syphilis, especially on the mouths of infants infected by the nurse. A simple lint dressing was applied. By Wednesday the spot was slightly indurated. Within a week the induration had become very marked; the epithelial scales had been shed; and there was a well-developed hard chancre. In six weeks appeared a syphilitic roseola. The wife was examined, and found to be, and to have been, free from any sign of syphilis.

The other case was that of a young lad who had his first and only coitus one Sunday. Being the subject of congenital phymosis, he had, during the act, torn down the prepuce at the insertion of the frenum. On the Sunday following he presented himself with a well-marked indurated nodule upon the frenum, the induration appearing to be then, seven days after inoculation, at least four days old. The surface of the sore was somewhat rough, from the tearing, but it soon smoothed off and became a typical chancre.

THE JACOBI PRIZE.

The Secretary, Dr. Purdy, reported, from the Comitia Minora, that the President of the Society, Dr. Abraham Jacobi, had established a prize of two hundred and fifty dollars ($250.00), to be awarded under the direction of the Society, and open for competition to the profession of the United States, for the best thesis on *The History of the Diseases of Infancy and Childhood in the United States, and of their Pathology and Therapeutics.* The above amount had been placed in the hands of the Treasurer of the Society, to be paid to the successful candidate, as determined by a committee to be appointed by the Society for that purpose.

On motion of Dr. Castle, it was voted that the Comitia Minora appoint the committee, with instructions to publish the terms under which essays would be received, and to decide upon their merits, and with power to withhold the prize in case none of the essays presented should be deemed sufficiently meritorious.

The Society then adjourned to the first Monday in September.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from June 5th, 1871, to June 18th, 1871, inclusive.

Gibson, Jos. R., Assistant Surgeon.—By S. O. 62, Headquarters District of New Mexico. June 1, 1871, relieved from duty at Fort Stanton, N. M., and directed to comply with requirements of S. O. 190, C. S. War Department.

Brooke, Jno., Assistant Surgeon.—By S. O. No. 71, Headquarters Department of the Columbia, May 27, 1871, assigned to duty at Camp San Juan Island, Washington Ty.

Cowles, Edward, Assistant Surgeon.—By S. O. 224, A. G. O., June 8, 1871, granted leave of absence for 6 months, to take effect when his services can be spared.

Kinsman, J. H., Assistant Surgeon.—By S. O. 25, Headquarters Mil. Div. of the Atlantic, June 1, 1871, granted an extension of his leave of absence for 30 days.

Wilson, A. D., Assistant Surgeon.—By S. O. 100, Headquarters Department of the Platte, June 8, 1871, directed to proceed to Fort Fred. Steele, Wy. Ty., for temporary duty at that post.

Ewen, Clarence, Assistant Surgeon.—By S. O. 114, C. S., Headquarters Department of Dakota, granted leave of absence for 30 days.

Medical Items and News.

New York Academy of Medicine.—Dr. John G. Adams, in his "Discourse, Commemorative of the Life and Character of Alexander Hodgdon Stevens, M.D., LL.D.," gives the subjoined particulars concerning the Academy:—"During the short period of twenty-three years since its organization, death has been busy in the ranks of the Academy. Out of a fellowship of five hundred and eighty, of various ages, one hundred and forty-three have been removed by death (a proportion of more than one-fourth), certainly a very large mortality. The ancient and honorable, the rich and the poor, the learned and unlearned, the young and the old, have alike been numbered among his victims. Many have fallen by pestilence, contracted in the discharge of duty; a few from the indulgence of the appetites; many more, worn out by the arduous labors of a self-denying profession. Of the fourteen presidents, during the same period, only five survive. The fathers! where are they! Mott! Wood! Stevens! the founders of the Academy? The triumvirate; the man who conceived, and who, with his associates, brought it forth, and nurtured it, until it attained strength, have gone—gone, with Stearns and Bliss, Beck and Bachelder, Francis, Minor, and J. M. Smith, with Swett and Watson, MacDonald and James Stewart, Kearney, Rodgers and Johnston, with Watts, Drake, Carter, and, so recently, the accomplished Elliot. Such is human life—a dream, a shadow, a watch in the night. What is there of reality in it, but the duties of life, and its hopes and aspirations for the life to come? "So soon passeth it away, and we are gone."

The Cobra.—Dr. John Shortt, General Superintendent of Vaccination (*Madras Journal of Medical Science*), says that Hindoo women venerate the cobra, as it is supposed to possess the power to confer the blessings of maternity by opening the barren womb; consequently it stands in high repute among them, notwithstanding its deadly power of destroying life. The figure of a serpent is often singly represented, but when two serpents are made to intertwine, the act and position represent the subject of the prayer or vow made by childless women, and indicate a desire for close sexual embrace, with a view to eventual pregnancy. When the union of the sexes is described by Tamil poets as particularly loving, it is represented to be like the intertwining of snakes during the act of copulation, for then the male and female snakes are said to twine around so closely and firmly together for the purpose, that they are scarcely to be distinguished as two distinct animals.

American Museum of Natural History, N. Y.—This association, incorporated two years ago, has made excellent progress in establishing a museum in the Arsenal building in the Central Park. The cases are said to contain nearly 1,000 mammals, 10,000 birds, and 2,000 fishes and reptiles. There are also nearly 400 mounted skeletons of the various orders. The insects number more than 10,000, and shells about that number. The insects were presented by Baron Osten Sacken, R. A. Witthaus, and Coleman T. Robinson. The shells are the gift of Albert S. Bickmore and William A. Haines. The remainder of the collection was obtained by purchase in this country.

Analysis of Chloral-Hydrate.—K. Muller (*Arm. Chemist*), in the analysis of chloral-hydrate, recommends that 25 grammes of it be placed in a burette, graduated from the bottom, and covered by a layer of dilute solution of caustic potash. This should be shaken, and after several hours the cubic centimetres of chloroform, produced by the reaction, may be read off. This number is multiplied by 1,525, the sp. gr. of chloroform at 30° F., and from the resulting figures, which is the weight of the chloroform, the percentage is calculated.

Female Students in Edinburgh.—The female students have been disappointed in their application to the directors of the Leith Hospital for admission to pursue their clinical studies in that institution. The directors have unanimously adopted the report of the medical committee, "That it is inexpedient to alter the present arrangement of the hospital, or to convert it into a medical and surgical hospital for the clinical instruction of ladies." In order to adapt the hospital for the purpose, thirty additional beds would have been necessary, an arrangement which circumstances rendered inexpedient.—*Med. Press and Circular.*

New York Medical Journal.—With the current number of the *New York Medical Journal*, Dr. E. S. Dunster, its accomplished editor, retires. During the five years he has been connected with this periodical he has successfully labored to place it in its present position, and his retirement from the office which he showed such rare capabilities for filling will be regretted by a host of readers. His successors are Drs. W. T. Lusk and James B. Hunter.

Inebriate Asylum.—The Trustees of this institution appointed by Gov. Hoffman, in pursuance to a law passed by the Legislature last winter, held their first meeting at Binghamton, N. Y., June 9.

The following were the Trustees present, being the full board, with the exception of Henry R. Pierson, of Brooklyn:—Dr. Willard Parker, New York; W. H. Bristol, Owego; Ausburn Birdsall, Binghamton; P. S. Danforth, Middleburgh; Dr. J. G. Orton, Binghamton; Pearson Munday, Watertown; Abel Bennett, Binghamton; Wm. W. Gordon, Delhi; John Conklin, Port Jervis; Perry G. Ellsworth, Ithaca; Asher P. Nichols, Buffalo; Dr. Wm. C. Wey, Elmira; Dr. George Burr, Binghamton; Dr. G. A. Dayton, Mexico.

A temporary organization was effected by calling Dr. Wm. C. Wey, of Elmira, to the chair, and Dr. George Burr, of Binghamton, was made Secretary. A committee was appointed to report plan of proceedings and order of business; who after consultation made a report which was adopted, when the board proceeded to elect officers by ballot as follows:—

President—Dr. Willard Parker.
First Vice-President—Dr. Wm. C. Wey.
Second Vice-President—Dr. Geo. Burr.
Treasurer—Abel Bennett.
Registrar—Samuel W. Bush.
Superintendent—Dr. D. G. Dodge.
Consulting Physicians—Doctors Willard Parker, Geo. Burr, J. G. Orton, Gilson A. Dayton, John Conkling, and Wm. C. Wey.
Committee of Finance—W. W. Gordon, P. S. Danforth, W. H. Bristol, Abel Bennett, Ausburn Birdsall.
Committee of Management and Discipline—J. G. Orton, W. C. Wey, G. A. Dayton, George Burr, P. G. Ellsworth.
Executive Committee—W. H. Bristol, W. W. Gordon, J. G. Orton, P. Munday, J. Conkling.

Medical and Surgical Memoirs.—Prof. Joseph Jones, M.D., of New Orleans, who is well known to our readers, proposes to publish a work to be entitled Medical and Surgical Memoirs, which shall embrace the investigations of fifteen years into the causes, geographical distribution, natural history and treatment of intermittent, remittent, and congestive malarial fevers, yellow fever, typhoid and typhus fevers, small-pox, spurious vaccination, measles, pneumonia, diarrhœa, dysentery, scurvy, tetanus, cerebro-spinal-meningitis, diseases supervening upon gun-shot wounds, pyæmia, hospital gangrene, erysipelas, etc. The results of the investigation of the diseases of the Confederate Army during the American civil war, 1861-65, will occupy a prominent portion of the work. These investigations have been prosecuted unremittingly during the past fifteen years; and the author proposes to lay the results before the medical profession as soon as a sufficient number of subscribers have been obtained. The address of Prof. Jones is glass-box 1542, New Orleans, La.

Loyalty to Science.—The Paris Academy of Medicine have refused to strike off the names of their eminent German colleagues from the roll of members, as they have been commanded to do.

A Collection of Surgical Instruments.—Sir William Fergusson has proposed to form a national collection of surgical instruments, to be placed in the museum of the College of Surgeons, London.

The Chair of Ophthalmology in Berlin.—This chair, made vacant by the death of the late Professor Albrecht von Graefe, has been lately filled by the appointment of Professor Schweigger, formerly one of von Graefe's assistants. He has already made a high reputation as an original investigator, and has had great experience in teaching. He will have the direction of an ophthalmic department in the Charité, containing eighty beds.

Prof. E. A. Clark, of St. Louis, Mo., the successor to Prof. Paul F. Eve in the Missouri Medical College,

died suddenly April 16th, at Paris, Ill., while on his way to Europe.

Washington University at Baltimore, Md.—Prof. Edward Warren has resigned the chair of surgery in this institution.

New York Physicians Abroad.—Drs. John G. Adams, B. F. Barker, Henry D. Bulkley, D. B. St. John Roosa, Geo. A. Peters, Lewis A. Sayre, and other medical men of New York City, will spend the next three months in Europe.

Royalty Afflicted.—The Empresses of Austria, Russia, and Germany are suffering from pulmonary tuberculosis.

The ex-Empress Charlotte has recovered her physical health, and will probably recover her reason.

The American Chemist.—Professors C. F. and W. H. Chandler, the editors of this valuable journal, have purchased of William Baldwin & Co. their entire interest in its publication.

The Scientific American.—Mr. Salem H. Wales, for about a quarter of a century the principal editor of the *Scientific American*, has decided to withdraw from the active management of this paper.

Medical Journals.—The *Western Medical Advance and Progress of Pharmacy* is a new quarterly, hailing from Detroit, Mich. It will be the design of this journal to present a *résumé* of the progress of medicine and pharmacy. The first number is adorned with a full-page chromo of eight narcotic plants.

The *Medical Cosmos*, Phila., is to be a monthly abstract of medical science and art, and an exponent of practical medicine as indicated by principle, science, or law, rather than a record of blind experiment. This journal is published by the editor and proprietor, Geo. J. Ziegler, M.D., of Phila., Pa.

Dr. Krackowizer's remarks (upon Dr. Speir's paper) before the Academy of Medicine contain a rather awkward typographical error. The word *theological*, page 186, second column, sixth paragraph, third line; and on page 187, first column, line nine, appears instead of *teleological*.

Rhode Island Medical Society.—The Sixtieth Annual Meeting of this Society was held at Providence, June 14. Dr. Geo. L. Collins, of Providence, was re-elected President, and Dr. C. W. Parsons, Secretary.

The following subjects are proposed by the Trustees of the Fiske Prize Fund, for the year 1871:—

1st. Hydrate of Chloral: Its Physiological Effects and Therapeutic Uses. For the best essay on this subject the trustees will pay the premium of $100. 2d. Cundurango: Its History and Medical Properties. For the best essay on this subject the trustees will pay the premium of $200.

Death from Bichloride of Methylene.—At the Charing Cross Hospital, London, another death under bichloride of methylene has occurred in a case of amputation of the finger.—*Med. Press and Circular.*

A Hospital Corps.—In a recent discussion in the House of Commons, London, on the vote of £248,300 for the English army medical establishments, Sir H. Stokes said that the Secretary of War had ordered a certain number of men to be trained for hospital duties and for looking after the wounded on the field of battle, thereby removing the pretext for soldiers leaving the ranks or skulking from their duties. About 850 men will be trained as members of the hospital corps.

The Virginia Clinical Record.—This is the title of a new monthly journal of medicine, surgery, and the collateral sciences, published at Richmond, Va., by M. W. Hazlewood. Profs. Manson, Terrell, McCaw, McGuire, Cunningham, and Cullen, of the Medical College of Virginia, contribute interesting articles. The journal has already been received with general favor and encouragement by its patrons, and by the physicians of the States of Virginia and North Carolina especially.

Belladonna Plaster.—Thomas E. Jenkins, M.D. (*Rich. & Louis. Med. Jour.*), says that a plaster made from the resinous extract of belladonna root is superior to that made from the spirituous extract of the leaf in the following respects: It adheres closely to the surface, requires no adhesive margins, and neither runs, exudes, nor stains the linen.

Darwin's Theories.—In the first number of the *Zeitschrift für Ethnologie* of this year, is a very valuable list of works bearing on Mr. Darwin's theories, compiled by Spengel, which occupies twelve closely-printed octavo pages. First comes a list of translations into German of "The Origin of Species," of "Fertilization of Orchids," and of "Variation of Animals and Plants;" next, forty-three original German works, criticising and carrying out the Darwinian theory. These are followed by about an equal number of books which refer to the same subject incidentally, though sometimes at considerable length. Among these we find Kupffer's "Essay on the Relation of Vertebrata to Ascidians," Von Baer's lectures, Carus's "Natur und Idee," and Rütimeyer's "Herkunft unserer Thierwelt." The fourth list is a most valuable one of reviews, magazine articles, and other scattered papers published in Germany on Natural Selection and the Descent of Man. Books devoted to the latter subject are next enumerated separately; and then translations into German of the kindred writings of Huxley, Lyell, Wallace, Agassiz, and Bates. Last comes a classified catalogue of all the works on Darwinism which have been published outside Germany, in England, France, Holland, and Italy. This list may be advantageously compared with that given by Mr. Darwin himself, in the fifth edition of the "Origin of Species." It will be invaluable to every student of the theory of evolution, and is a remarkable proof of the amount of scientific thought and work (as well as of some that is not scientific) which the great naturalist's writings have called forth.—*N. Y. Tribune.*

King's College Hospital, London.—A London correspondent of the *American Practitioner* writes as follows with reference to this Hospital—the favorite place for operations:—It boasts of having the first surgeon in London, Sir William Fergusson; and while the number of its beds is not so large as Guy's or Bartholomew's, the fame of this surgeon keeps them full of operative cases. Mr. Henry Smith and Mr. Wood are its other surgeons, and Soelberg Wells its oculist. The fame of Sir William, especially as an operator, is great. Mr. Paget, of St. Bartholomew's, is his great rival in London practice and in the schools. Sir William's appearance is in keeping with his reputation. Though nearly seventy, he is still firm, vigorous, and erect, standing over six feet, with a powerful frame and massive head. He resembles very much Prof. Gross, of Philadelphia, and handles his knife as if it were one of his fingers, so readily does it obey him, and so gracefully is it used. The writer says: "What a 'swell' surgeon he is, indeed, and how pleasant it is to think that it is in the power of a scalpel to carve one's road to a baronetcy and £12,000 a year!"

The Prevalency of Neuralgia in Northern Indiana.—Dr. Robert Robson, of New Harmony, Indiana (*Chicago Med. Examiner*), writes that facial neuralgia, of undoubted miasmatic origin, is very prevalent in the Wabash bottoms, and especially among females.

Original Lectures.

VARIABILITY IN THE TYPES OF DISEASES.

REMARKS BEFORE THE MEDICAL LIBRARY AND JOURNAL ASSOCIATION OF NEW YORK.

By J. C. NOTT, M.D.,

NEW YORK.

(Concluded from page 196.)

Part II.

Now you will naturally ask, What has this dissertation on species, hybridity, &c., to do with the types of zymotic diseases? I frankly admit that I am dealing with a *hypothesis;* but if we can succeed in disproving a popular false theory, and in putting something more plausible in its place to direct thought, we gain an important step in the path of truth.

It is admitted on all hands that diseases *do* mingle their types. Although wanting proof, the germ theory has many supporters, and the minds of able investigators are now actively engaged in that direction. If such microscopic organisms *do* exist as germs of diseases, it is easy to conceive that, when brought in contact, their types should blend in various degrees, and cross-breeds arise, just as they do in those organic forms which come more within the reach of our vision.

We have already alluded to the well-known fact that prevailing epidemics produce a peculiar "constitution" of the atmosphere, which makes its impress on all intercurrent diseases, whether zymotic or simple inflammatory, and this constitution Sydenham tells us may last "for several years;" but the duration must vary according to a variety of circumstances. Some epidemics seem to pass on after a few months, leaving little or no traces, while others, as is often the case with typhoid fever, may linger about a locality for several years.

There is reason to hope that at some future day the great family of zymotic diseases may be divided into genera, species, and varieties, with as much precision as the animal kingdom. Typhus, typhoid, relapsing, the fevers of armies and crowded vessels, and others of kindred nature, might be regarded as belonging to one genus, and when they come together they mingle and form hybrids of every degree. Yellow-fever, by many writers, has been described under at least two types, and it is difficult to believe that the endless variety of marsh malarial fevers arise from a single morbid poison or germ. These might be grouped together as species of another genus. They all mingle when brought together in every possible degree. The forms of these diseases differ greatly in different localities and different countries.

Skin-diseases seem to obey the same law. When variola and varicella come together, they mingle so as to defy diagnosis, and what are called very mild cases of small-pox may perhaps in some instances be hybrids. We know that the vaccine modifies, in an extraordinary way, small-pox in the human subject, though no explanation can be given of the fact. Scarlet-fever may be regarded as a species of another genus. I have seen it so amalgamated with measles as to embarrass me very much in making up an opinion with regard to the nature of the cases. A case, for example, would commence with the catarrhal symptoms of measles, go on to the fourth day, and throw the measly rash out freely. In a day or two more the throat symptoms of scarlet-fever would supervene, followed by the desquamation of scarlatina, renal dropsy, suppuration of internal ear, &c.

Yellow and bilious remittent fevers, when uncomplicated, are as distinct as any two febrile diseases can be, and yet when they come together, which they often do, they are blended in every possible degree, just as intermittents and remittents are. These diseases all occur in the same season and same locality, and so confused do they become that I have often seen a simple tertian intermittent (when yellow-fever was prevailing) terminate suddenly in fatal collapse and black-vomit in its second or third paroxysm.

In those cities where yellow-fever is endemic, or in which it has taken up its abode, as in New Orleans and Mobile, its influence upon other febrile diseases is probably never absent, though the disease is not always apparent to the eye. I can account in no other way for the peculiar types of malarial fevers in these towns during seasons when yellow-fever is not prevailing. The marked difference between those hybrid fevers, as I would call them, and the uncomplicated malarial fevers of interior rural districts where yellow-fever never goes, is very striking to one who is suddenly transferred from the interior of South Carolina to one of those yellow-fever cities. Those practitioners who have spent their lives in Mobile or New Orleans alone will find it difficult to comprehend my meaning.

It is a common occurrence for yellow-fever, when epidemic in Mobile or New Orleans, to travel up the water-courses leading to those cities several hundred miles, to points visited by steamboats running from the cities. The country practitioners along those streams, for two or three hundred miles, tell us that even in those years which are exempt from yellow-fever in the seaports, they frequently meet cases of bilious fevers presenting many of the characteristics of yellow-fever—yellow skin, early collapse, black-vomit, &c. I will now give a few additional facts from my own observation connected with the types of malarial fevers:—

After graduating at the University of Pennsylvania, I remained in Philadelphia three years in connection with the almshouse as *interne*, and as demonstrator of anatomy in the university, during which time I assisted my distinguished preceptors, Professors Samuel Jackson and Horner, in nearly all their post-mortem examinations. During this time I had an opportunity of seeing a considerable number of remittent fevers from the banks of the Schuylkill and Delaware rivers. I recollect well the type of those fevers; they were characterized by great heat of skin and thirst, strong frequent pulse, slight morning remissions, severe pain in the head, back, and limbs, and the usual duration was from seven to nine days. We sometimes bled them, always cupped and leeched freely, gave mercurial purges and quinine, and they made good recoveries. These cases were such as we would expect in northern latitudes, and such as are called *mild remittents* in our Southern States.

From Philadelphia I went to Columbia, South Carolina, and commenced private practice; and here I was at once brought in contact with remittent fevers of a higher grade, which were there denominated "high bilious fever." The symptoms of these fevers were more violent than those I had seen in Philadelphia, rarely terminated under nine, and frequently ran to fourteen or twenty one-days. Intermittent fevers were common, and yielded readily to quinine; but the remittents almost invariably ran to one of the above critical days. Quinine, I should remark, was not as boldly given then as now, and this may be a reason why more of the cases did not terminate in less time.

I well remember the intense heat of skin, the determi-

nation of blood to the head, and the full, incompressible, almost apoplectic pulse. Many physicians used the lancet freely, and continued to draw blood in the second and even third week, so persistent was the tension of the pulse. Mercury and purgatives were freely used also. I have no doubt that the antiphlogistic treatment was pushed much too far; but still the mortality was very light and the patients made good recoveries. The diet was always rigid. I allude particularly to this type of disease, and its *toleration* of antiphlogistic treatment, in order to contrast it with other types seen in the Gulf States, of which I shall speak, and which *do not tolerate* depletion. Nay more, the fevers of the same locality, a few years later, lost their sthenic type.

When after an absence of ten years I returned to South Carolina on a visit, in conversing with two of my old medical friends, Drs. R. W Gibbes and Trezevant, about the type of fever I found in Mobile, I was much surprised at their assertion that the "high bilious fever" I used to see with them had disappeared, and that a much milder and less sthenic type, which no longer called for the lancet, had taken its place.

This conclusion (nearly thirty years ago) as to the change in the type of fevers in and around Columbia, cannot be attributed to any change in theory, but was the result of the observation of two sensible, well-informed, experienced physicians.

From Columbia, where I had practised about seven years, and had been familiar with the high bilious fevers above mentioned (the same fevers described by Fordyce, Armstrong, and others), I was suddenly transferred to the Gulf of Mexico. The town of Mobile was rapidly developing and extending into its marshy malarial suburbs, where intermittents and remittents abounded. I was at once placed in a position to observe the endemic fevers, and was greatly astonished to see a type of disease so different from those of Carolina.

The fevers I was here called on to treat in the summer of 1836 were all of *asthenic* type, with little heat of skin compared to what I had been accustomed to—tendency to sweating through the whole course—pulse not rapid, and very compressible—prostration by the fifth day so marked as to call for stimulants; and so palpable was the indication that every physician in the town proscribed the lancet and resorted freely to brandy, quinine, and nourishment.

At that time I had never seen a case of yellow-fever, from which Mobile had been exempt for eight years. The next year, however (1837), yellow-fever reappeared as an epidemic. I then had an opportunity for studying it, and at once recognized a disease of type kindred to the Mobile remittents above described, but presenting both a history and symptoms which marked it as a distinct disease—a disease *sui generis*. The remittents had a strong tendency to prostration and crisis about the fifth day—yellow-fever invariably has—and if the patient lives a week he is almost certain to recover.

Whether yellow-fever in Mobile be an endemic, or, like scarlet-fever, an imported and acclimatized disease, is still a point of dispute; but while yellow-fever in Southern seaports is only occasional, intermittents and remittents are never absent in the autumn. The germ of yellow-fever, like that of scarlet-fever, may lie dormant for a time, but always lingers behind, ready to be brought into activity by unknown causes. It produces a peculiar "constitution" of atmosphere that makes a permanent impression on the endemic marsh fevers of their common habitat.

New Orleans, Mobile, Savannah, Charleston, and Norfolk, are all built in fenny districts, where intermittents and remittents prevail. When towns of large size are built in such districts, the endemic malarial fevers are expelled from the cities, while they still exist in full vigor in the environs. These fevers rarely creep into the heart of cities—probably never originate in the city—but when yellow-fever breaks forth it is either within the city or in the shipping, and gradually extending to the suburbs it creeps into the country for several miles, and becomes so mingled with the intermittents and remittents as to confuse types and defy all attempts to separate them.

An incontrovertible proof of the distinctness of yellow-fever and bilious fever is the fact that one attack of yellow-fever affords perfect immunity against a second, but none against any form of malarial fever; while, on the other hand, the same subject may be attacked any number of times by malarial fever, and at the same time receive no protection against yellow-fever.

So infinite are the types of endemic malarial fevers scattered over the globe, that it is difficult for me to believe that they are all produced by one and the same poison, differing merely in degree; that simple intermittents, the terrible forms of congestive fevers of our Gulf States, the jungle fevers of Africa, are all produced by a single cause is an assumption. No mineral, vegetable, or animal poison, which has been isolated and experimented upon, has produced such varied and contradictory results. Is it not more rational to suppose that, like the plants and insects in the same localities, they may be divided into innumerable species of a common genus?

Knowing that yellow-fever was the great disease with which I should have to battle on my removal to Mobile, I procured every book of note that I could lay my hands upon, and made it a careful study. Most of these works had been written during the last century and the first quarter of the present century. I could come to no other conclusion, from the character and number of the authorities, than that yellow-fever was a highly sthenic disease demanding bloodletting. My mind was made up to bleed, purge, and give mercury freely when the disease presented itself. On the 20th September, 1837, I was called to my first two cases, in consultation with Mordicai, a remarkably sensible, well-educated physician. One of the patients was a vigorous Vermonter, weighing 200 pounds; the other a rather spare, wiry, nervous man—both of them between 30 and 40 years of age, and sick about 24 hours. In neither was the pulse strong—about 100—and so compressible that I thought it did not call for the lancet. Dr. Mordicai asked what we should do. I replied the pulse does not indicate it, but the books all say bleed, and therefore I say bleed. I recollected the "*oppressed pulse*" spoken of by Rush and others, which developed under bleeding. The doctor agreed to my suggestion. I corded up the arms of one after the other, and opened a vein in the sitting posture. The Vermonter fainted at 10, and the other man, who had more prominent head symptoms, at 12 ounces. I was much astonished at the depressing influence of such small bleedings, and determined that I would never draw blood again in yellow-fever patients with such pulses. This asthenia continued, in spite of stimulants, and they both collapsed and died on the fifth day with black-vomit. Nor would Rush, Robert Jackson, or any sensible man of the old bleeding school have dared to bleed, unless in a few exceptional cases, in any yellow-fever epidemic that has visited Mobile in the last thirty years. The conclusion that Dr. Mordicai and myself arrived at with regard to bloodletting

was adopted from observation by Drs. Levert, Fearn, Crawford, and all the other physicians, long before Hughes Bennett and Todd had propagated their doctrines. Not only had the physicians of Mobile, thirty years ago, almost entirely abandoned bloodletting in endemic and epidemic fevers, but in pneumonia. Dr. Mordicai, a brother of Capt. Mordicai of the United States Army, a man of exceedingly sound judgment, remarked to me that since his residence in Mobile, which commenced about 1825, "*my lancet has rusted in my pocket.*"

I had been taught to bleed, in Philadelphia, under the teachings of Physick, Chapman, Dewees, Hodge, Jackson, Mitchell, and others, and while interne in Philadelphia Almshouse the most arduous part of my duty was bleeding and cupping about twenty patients daily; and yet when I came to Mobile the fact soon forced itself upon me that the diseases of that place and time would not tolerate bleeding, and called loudly for brandy. I saw epidemics of yellow fever in 1837–'39–'42–'43–'47, '53, '57, during which more than twenty thousand cases must have occurred, and during the whole of this time the doctors proscribed the lancet and resorted to the supporting treatment.

I will here give a few quotations, by way of contrast, from old English writers on the diseases of hot climates, to which a hundred other names might be added.

And first let us hear what Robert Jackson, the Surgeon-General of the British army, the "Ulysses of Medicine," says of bloodletting in fevers. "The end is not attained in many cases, particularly in the more concentrated forms of fever that appear among the military in tropical climates, at a less expense than eighty or ninety ounces of blood drawn at once." "Such quantities may appear unsafe to some readers, but I am warranted to say from the whole proceeding, that *no accident occurred in any instance from the most excessive bleedings* that were made; and I may add that the strength was so little impaired by this apparently revolting practice, that the greater number of persons who were treated in this manner *returned to duty within a fortnight, in the full vigor of health.*"

In some cases of fever attended by cerebral inflammation, Jackson sometimes abstracted a hundred and seventy ounces of blood, or ten pounds in a day, and remarks, "instead of danger at the time, or debility as a consequence of such extraordinary depletion, fainting did not always occur, and the patient, *in most cases*, returned to duty within *eight days.*"

Bamfield says: "Venesection is our sheet-anchor in yellow-fever," and "has been astonished and shocked to find bloodletting in hot climates condemned."

The experience of Mosley corresponds with that of Jackson, and where the remedy has apparently been, of ample extent, he remarks: "It has frequently happened in the fevers of the West Indies that accidental bleeding from the orifice, when the patient had fallen asleep, to far greater quantities than has ever been directed to be taken away, has carried off the fever entirely, and the surprise on discovering a profusion of blood in the bed, has been changed to joy for the alteration produced in the patient." Rush "always observed that the cure of malignant fever is most complete, and the convalescence most rapid, when the bleeding has been continued until a paleness is induced in the face, and until the patient is able to sit up without feeling fainty."

I might thus go on and quote from Pringle, Cleghorn, Hillary, Stevens, Baker, and a host of other writers on the diseases of tropical climates.

Now I do not quote all these authorities on bloodletting to indorse their practice, but simply to show that bloodletting has been *tolerated* far beyond the point which teachers of the present day regard as either admissible or possible without prostration and fatality.

How can any fair-minded man believe that the yellow-fever which has prevailed in Mobile and New Orleans during the last thirty years, and which *would not* tolerate bleeding, is the same disease that Rush and the English army and navy surgeons bled to such enormous extent? I do not believe that those authors would have been so stupid and blind as to persist in drawing blood by pounds from patients who fainted from ounces.

How then are we to explain this discrepancy in practice on any other ground than that of *difference of type?*

The yellow-fever epidemic in Mobile, of 1837, the first I saw, had not run half its course before I was taken down with it, and barely escaped with life. I therefore had to take the reports of my confrères for the type and course of that epidemic. It was agreed by all to be asthenic, and not to bear the lancet. Two years after came the terrible epidemic of 1839, which left a strong impression on the minds of all who survived it. The type was the same as that of 1837. But while I insist upon the asthenic type of these epidemics, and all those which have followed them, I wish to bring out prominently the fact that *there are* in all these epidemics exceptional cases complicated with delirium (which is not a *common* symptom of the epidemics I have seen) and characterized by excessively high action. And here let me ask an important question:—Did these inflammatory cases, which are so exceptional in the fevers of Mobile, characterize the predominant type of the writers above referred to? The results of bloodletting would seem to determine the question in the affirmative. I will give a typical case of the inflammatory type. During the epidemic in Mobile of 1839, my friend Dr. William B. Crawford, about thirty years of age, 5 feet 11 inches high, weighing about 130 lbs., spare built, of nervous excitable temperament, very active intellect, and rather free drinker, after a hard day's professional work went to bed perfectly well about eleven o'clock, and while fast asleep was aroused by a chill, muscular pains, and violent pain in the forehead about two o'clock. At five in the morning, three hours after the attack, I saw and found him wildly and furiously delirious, face flushed, eyes injected, pulse between 120 and 130, full and incompressible, with the resistance of an apoplectic pulse. All the symptoms called for bleeding. It required two men to hold him while I corded his arm and opened a vein. I took a quart of blood without producing any satisfactory impression on the force of the pulse. I then ordered thirty leeches to be applied to the temples and epigastrium, the stomach being irritable. The leeches bled well; but still the pulse, delirium, and fever were unabated, and he continued to resist us with all his force. I next put him in a warm bath; in fifteen minutes he fainted while in the bath, was then taken out and laid on his bed, and when he recovered from the syncope he looked around at us like one waking from a dream. With an inquiring look, he asked what was the meaning of all this? His pulse was quiet, his skin cool and perspiring, his mind clear, and he asked and answered questions clearly. The violence of the disease was broken by one decisive blow, and ran its course out mildly, with little discomfort to him and without further anxiety to me.

Dr. R. Lee Fearn, another of my personal friends, had a similar attack, and was relieved by the lancet and warm bath. He was about forty years of age, about 5 feet 8 inches, weighing 200 lbs., very nervous and excitable.

He had also brain symptoms, with strong pulse, and would have died without bleeding. I could enumerate other cases of this inflammatory type, but they are few and far between in the fevers of Mobile, certainly not more than three or four per cent.

A striking characteristic of yellow-fever is the clearness of the intellect up to the very hour of death. It is ushered in by a slight chill, followed immediately by reaction, accompanied by intense muscular pains throughout body and limbs, and also violent pain in the frontal region. These pains all subside within forty-eight hours, together with the febrile excitement, leaving the pulse about its normal standard of frequency. The exceptional cases in which there *was delirium* were those in which the vigorous action of the heart and toleration of free bloodletting were witnessed. Such cases, from the descriptions of tropical writers, formed the predominant type of the diseases they treated, and there can be no question that a large portion of such cases may be cured by the lancet that would prove fatal without it.

All the common-sense of the human race has not been reserved for our generation. When we go back and read the graphic descriptions of fevers by the old authors—fevers which tolerated bloodletting to an extent which yellow-fever has not for half a century in the United States and the tropics—can we come to any other conclusion than that these fevers have not now the sthenic type they formerly had? We know that measles, scarlet-fever, typhoid fever, malarial fevers, and even pneumonias, do differ in type and in fatality in different years and places, and it is still a question how long these atmospheric "constitutions" may continue.

That bleeding, purging, and starving, I repeat, were abused by our ancestors I freely admit; but that we are not now running to the other extreme I am by no means sure. Over-feeding and over-stimulation are no less fatal than excessive antiphlogistic treatment. I have treated cases of typhoid fever where the patient absolutely required a bottle of brandy every twenty-four hours, and I have treated others that would have been killed by one-fourth that quantity; and yet it is a common practice to see stimulants and food forced upon the system beyond its power of toleration. The same remark applies to pneumonia and other inflammatory diseases.

The subject of yellow-fever, Mr. President, is not one of idle curiosity in the city of New York. This fearful disease has knocked at our gates several times of late years, and no man can assign a reason why, at no distant day, it may not burst through the quarantine and appear in our midst. On the fourteenth day of last August yellow-fever appeared on Governor's Island in malignant form, and had it entered this city might have cost fifty thousand lives in ninety days. It is by far the most destructive of all epidemic diseases. In Barcelona, in the early part of the present century, it carried off one-third of the entire population, and when it appears in an unacclimated population like that of New York, there is no setting bounds to its ravages.

I was requested by the Board of Health, last September, to visit Governor's Island and report on the type of disease, which I did with great interest. The disease could not be mistaken by one familiar with it. I found the troops and employés on the island dying of genuine yellow-fever, of the asthenic type I had been familiar with at the South, and no physician of any school or any age would have been so mad as to bleed in this type of disease. The pulse and all the symptoms forbade bleeding, and if the lancet had been tried, the murderous hand would have soon recoiled from its work.

No one of my hearers is more conscious than myself of the shortcomings of this lecture, both from want of time and want of facts to illustrate the various points touched upon. I will conclude by laying down the following propositions, as showing the conclusions towards which my mind has been drifting:—

1st. All zymotic diseases, whether endemic or epidemic, vary in type in different years and different places.

2d. Epidemic and endemic diseases produce a peculiar "*constitution*" of atmosphere, or agency of some kind, which influences all intercurrent diseases.

3d. Yellow-fever, the great endemic and epidemic of the tropics and bordering countries, affords a striking example of *variability of type*. It sometimes assumes a highly sthenic form, demanding active antiphlogistic treatment; at others it appears in the opposite extreme, not only *not tolerating* depletion, but demanding stimulants.

4th. In southern cities, like Mobile and New Orleans, where yellow-fever is rarely absent more than two or three years, there is reason to believe that it leaves its permanent impress upon the local malarial fevers. It creates a peculiar atmospheric "constitution," which never dies out, and manifests its presence in the types of the remittent fevers, even in the apparent absence of yellow-fever.

5th. No disease varies more in type, or is more influenced by atmospheric "constitutions," than epidemic pneumonia. Sometimes it is simple, at others malarial or typhoid in type, and requiring corresponding modifications in treatment; at one time bearing depletion well, at another requiring quinine, or tonics and diffusible stimulants.

6th. Statistics taken from large hospitals, where the tendency of all disease is to asthenia, are not always safe guides in private practice, where the conditions are widely different.

7th. In regard to the indications for bloodletting, I would lay down the following general rules: In cases where blood accumulates in the right side of the heart faster than it can escape, producing dyspnœa; in cases of œdema or engorgement of the lungs, threatening suffocation, and in œdema of the brain or hemorrhage leading to coma. In simple inflammatory diseases, in certain idiopathic fevers, and brain affections, where the action of the heart is strong and the pulse *above par*, bleeding, by removing the *vis a tergo*, will do good service in relieving congestions, and in moderating or arresting the progress of inflammation.

8. Our best-directed efforts may never reach any satisfactory explanation of so-called atmospheric "constitutions;" but it is not unreasonable to indulge a hope that the microscope may some day discover living germs as causes of certain zymotic diseases, and if so analogy would lead us to expect that such organisms obey the same general laws in their geographical distribution, manner of propagation, &c., which govern those forms which are now better known to us.

London in 1871.—The population of this great metropolis is estimated for the middle of the year 1871, at 3,258,469. The city extends over 422 square miles; and on an average there are 2,669 persons to a square mile.

The increase of the population in the ten years, 1861–71, was 447,815. Not many cities in the world have a population equal to this increase of the metropolis of the British Empire in ten years.

Original Communications.

THE OPERATIONS FOR VARICOCELE.

By J. H. TYNDALE, M.D.,

HOUSE SURGEON, GERMAN HOSPITAL, N. Y.

The various operations in vogue and practised for the cure of varicocele have for their object either the permanent occlusion or destruction of the offending blood-vessels, or more or less permanent support of the scrotum.

Before reviewing each operation in detail, and endeavoring to point out their respective merits and defects, and the utter futility of all so-called "operations for the radical cure of varicocele," it will be well to call to mind the existing condition, as also to refer briefly to the anatomy of the parts in question.

Varicocele now signifies a dilatation and consequent tortuosity of the veins of the spermatic cord, sometimes accompanied by a like condition of the veins of the scrotum. In former times the latter condition alone was known as varicocele, while the former was denominated circocele. The fact of its occurring in nearly all cases on the left side, has been variously ascribed to three causes:—

First. The left spermatic vein empties into the left renal, thus supporting a longer and heavier column of blood than the right spermatic, which empties into the inferior vena cava.

Second. The explanation offered by Dr. Brinton, of Philadelphia, according to which the right spermatic vein is supplied with a valve at its entrance into the vena cava, whereas no arrangement of this sort is to be found on the left side.

Third. The position of the sigmoid flexure to the left of the median line, and the consequent pressure upon the hemorrhoidal and spermatic plexuses when fæces are present. The temporary relief of the distension of vessels, and the accompanying pain afforded by an evacuation of the bowels, gives strength to this latter explanation.

The spermatic veins for the most part accompany the spermatic artery immediately upon their exit from the testicle. Several smaller ones, however, reach the spermatic plexus by a circuitous route, first descending at the posterior portion of the testicle and turning upwards, accompany the vas deferens, *lying on the outside of the same*, a fact which I have frequently noticed in dissections, and not without bearing in the consideration of the various destructive operations. Moreover, two or three diminutive branches, arising from the inferior portion of the testicle, accompany the spermatic artery, but empty into the epigastric vein at the internal abdominal ring.

Passing to the operations themselves, those having for their object the obliteration of vessels will first be considered:—

1. Ligature of the veins of the spermatic cord, as practised in ancient times by Celsus, and again recommended by Delpech.

2. Excision of the parts included between the ligatures, a modification of the above by Petit, and now mostly effected by the écraseur and including the skin and dartos.

3. Subcutaneous ligature of the spermatic veins, as recommended by Velpeau, Franc, Ricord, and others.

4. Compression by means of peculiar forceps, originally Brechet's, grasping the vein or veins, inclusive of the scrotum, at various points, in order to cause occlusion of the vessel by adhesion of the walls.

5. Galvano-puncture, strongly recommended by Schuh, Bertani, and others.

The objection to all of the above methods is, first, the undisputed fact that they afford but very temporary relief, and their defects may be classified as follows:—

Firstly. It is utterly impossible to obliterate *all* the veins of the testicle and scrotum, or even those of the testicle alone. Even with the exercise of great care, the comparatively large vein accompanying the vas deferens (referred to above) is certain to be overlooked, and when found (which when the scrotum is left intact is an impossibility) *cannot be excised or compressed without including the vas deferens.* Of this fact any surgeon can satisfy himself by careful dissection.

Secondly. As a consequence of the impossibility of including all the veins, the remaining ones will dilate still more, owing to the increased quantity of blood forced into them; the weight of the column will find no support in the loose connective tissue surrounding the vessels, and their tortuosity will become more pronounced than that of the original varicocele.

Thirdly. If it were possible to obliterate all the veins, the natural result would be the formation of a thrombus in the spermatic artery, and atrophy or gangrene of the testes.

Fourthly. The danger of phlebitis is quite imminent after the excision of any part of the cord.

6. Ligature of the internal spermatic artery, introduced by Maunoir and recommended by Sir Charles Bell, Amussat, and Jameson. This operation is open to a very patent objection on anatomical grounds also. There are two internal spermatic arteries on each side, which frequently divide into two or three branches immediately below the external ring. Moreover, I find it stated in several works on anatomy, that the internal epigastric artery gives off an external spermatic branch. It follows, therefore, that ligature of the internal spermatic will cause *no change whatever* in the existing condition.

7. Opening of several veins with the lancet, credited to Sel., is a mere phlebotomy, productive of no results.

8. The application of caustics for the purpose of obliteration, such as the red-hot iron and mineral caustics. This is an ancient method, but has been revived by Schuh, Bertani, and Milani. Aside from the great danger of subsequent phlebitis, it is to be remembered that cauterization is applicable only to veins of the scrotum, not only not relieving but augmenting the varicosity of the internal veins.

9. Davat's method by the introduction of needles, and Fricke's, that of a thread passed through the body of the vessel, in order to cause adhesive inflammation. Phlebitis is more to be dreaded after this operation than any other, not to mention again the impossibility of singling out each individual vein.

Another class of operations which commend themselves to our notice, are those calculated to give more or less permanent support to the scrotum. The most important of these are:—

1. Excision of a redundant portion of the scrotum, as practised by Sir Astley Cooper, who intended the cicatrix formed to act as a permanent suspensory. Since the scrotum and adjoining skin and connective tissue will admit of very considerable stretching, the remaining portion will in a short time regain the original length, as I have had occasion to observe in several cases.

2. Invagination of the scrotum into the inguinal canal with a view to adhesive inflammation and retraction of the scrotum. This is essentially the same proceeding as those practised for the radical cure of hernia, and

known respectively as Gerdy's and Wutzer's methods, with the acknowledged result of a return of the invaginated scrotum (no adhesive inflammation being accomplished in the inguinal canal), on the one hand, and the natural elongation of the remaining portion of scrotum in a short while on the other.

3. The winding-up subcutaneously of the veins by means of silver wires, as described by Vidal de Cassis, is based upon the false presumption that the chief cause of varicocele is to be found in the length of the spermatic veins. Moreover, it is more complicated and painful than other methods of pressure, and presents no advantage over them.

4. Other methods of supporting the scrotum and exercising pressure upon the veins are Wormald's of wearing a silver ring to support the scrotum during the day, and Thompson's "bracherium" for the same purpose.

The objectionable features of these methods of support are not to be found in the principle, but in its application. Since none of the operations for the radical cure of varicocele promise anything but temporary relief, the methods tending to *permanently palliate* the evil are to be preferred. But the application of support in the various ways spoken of is inadequate. Referring again to the cause of varicocele, it will be found that the chief hindrances to free circulation are:—1st. The existence of the spermatic plexus, pressed upon by the accumulation of fæces in the sigmoid flexure and aggravated by constipation. 2d. The absence of a valve on the left side. 3d. The emptying of a part of the veins of the testicle into the epigastric vein *at the internal abdominal ring.* This anatomical fact alone will demonstrate, that support of the scrotum will not accomplish the desired object.

In view of all the facts mentioned, we are justified in making the following deductions:—

First. The operations for the obliteration of the spermatic vessels afford but very temporary relief. In the few successful cases on record of subcutaneous ligature, the history of the case would doubtless show that only one vein was involved; hence the cure.

Second. Of the methods now in vogue, those attempting a support of the parts affected are alone admissible.

Third. The cause of varicocele being ascribable not to the veins of the scrotum, but to the pressure upon the spermatic plexus, the absence of a valve, and the emptying of several vessels into the epigastric vein at the internal abdominal ring, the indication is to apply the support in the neighborhood of, or immediately at, the external abdominal ring.

Fourth. Any method of support (as by Evans' truss) at or near the external ring, aided perhaps by proper support of the scrotum and contents, is the only rational treatment for varicocele.

FRACTURE OF SURGICAL NECK OF HUMERUS.

A CASE WITH SUGGESTIONS OF TREATMENT.

By J. W. GROSVENOR, M.D.,

LOCKPORT, N. Y.

R. P., a girl aged 12 years, on Oct. 22, 1869, fell from a tree a distance of ten or twelve feet, striking on her right shoulder. Examination disclosed an oblique fracture of surgical neck of right humerus, the direction of the fracture being downward and backward. The upper end of the lower fragment, sharp and prominent, could be easily detected above the coracoid process. The lower fragment was reduced to its normal position by a moderate force of extension. Extension being removed, it slid back towards, though not so far as, its former position.

Dressings consisted of a roller bandage, pasteboard splint, and sling for the forearm. The splint was wide enough to surround the arm, and the upper end was hollowed out sufficiently to make two long horns. It was placed under the arm, pressed up firmly into the axilla, and the two horns made to cross each other over the shoulder and press upon the upper end of the lower fragment. The splint was kept in position by a roller bandage, which passed also around the body. At the end of one week dressings were removed. The upper end of the lower fragment was found quite prominent. The fragments being readjusted, a Welch's wooden shoulder splint was substituted for the extemporized pasteboard one. At the end of the second week the prominence of the upper end of the lower fragment continued. The lower fragment when drawn down into its normal position would slide upward into its former situation. A weight was then attached to the lower fragment by means of adhesive plaster, and a cord passing over a pulley, according to Buck's method for fractured femur. Ordered the patient to be kept constantly in bed. At the end of the third week union had occurred, with a prominence of upper end of lower fragment. Contrary to orders, the patient had been allowed to leave her bed every day during the third week. On the thirtieth day after the accident movements of the arm were nearly normal, and the same prominence mentioned heretofore continued. Five weeks after the accident measurement showed a shortening of one-half an inch. The patient at that time had almost complete control over all normal movements of the arm.

After reflecting upon the treatment of this case, I caused to be made a straight wooden splint, to be used in similar cases at a future time. The upper end was hollowed out and padded to fit the axilla; the lower end extending below the elbow was furnished with a screw, for the purpose of lengthening and shortening the splint at pleasure. The objects of the splint thus constructed were to produce extension and counter-extension, the former at the lower end of the splint, the latter at the axilla.

After hearing objections to my splint from some medical friends, I concluded that any splint which depended upon the axilla, at a point at which to make counter-extension, would defeat the object for which the counter-extension would be made. This results from the relation which the point of fracture bears to the points of attachment of a few muscles in its immediate vicinity. Three muscles, pectoralis major, latissimus dorsi, and teres major, are inserted into the bicipital groove immediately *below* this fracture; hence, any force in the axilla pressing these muscles upward will also carry upward the lower fragment to which they are attached; whereas the *upper* fragment, not the *lower* one, *should* be carried upward.

I can think of no apparatus so well adapted to draw the fractured surfaces into normal apposition, and retain them there, as the weight and pulley recommended by Dr. Buck for fractures of the thigh. The weight attached to the lower fragment, and passing over a pulley at the foot of the bed, would act as an extending force; for counter-extension acting on the upper fragment, strong and wide strips of adhesive plaster could be applied to the back and chest, and then fastened to some firm support at the head of the bed. Of course it would be absolutely necessary for the patient to remain constantly confined to the bed. A disobedience of advice in this regard on the part of my patient rendered this treatment futile in her case.

I have never seen this method of treatment proposed for difficult cases of Fracture of Surgical Neck of Humerus, but, should another case as obstinate as the one detailed above occur in my practice, I should not hesitate to use this method, although unsanctioned by authority.

REPORT OF NINETEEN CASES OF LITHOTOMY.

By HENRY S. WEST, M.D.,

PHYSICIAN OF THE AMERICAN BOARD OF COMMISSIONERS FOR FOREIGN MISSIONS, SIVAS, TURKEY.

These cases have occurred in my practice since my last report in your Journal, making in all eighty-eight.

Of these nineteen patients, sixteen were from three to ten years of age, and the remaining three from seventeen to twenty.

Fourteen operations were lateral, five median.

Fifteen of the stones removed were lithic, two oxalic, two phosphatic, and one mixed, the central portion being lithic, and the cortical, which was the main portion, being phosphatic.

All the patients recovered but one, a child five years of age, of feeble health, on whom at first I declined to operate, hoping for improvement by deferring the operation. This was found to be impracticable. The child bore the operation well, went to sleep afterwards under the influence of an anodyne, and died the following night in a stupor. The urine was full of phosphatic deposit and alkaline. The stone, which was phosphatic, weighed nearly four drachms.

Another case had been operated upon the year before by a surgeon who had had some experience in lithotomy; but in this instance failed after his incisions to find the stone. Some days before I operated I sounded this patient and failed to find the stone. The day of the operation I detected it by a second sounding. On introducing the staff for the operation, I again missed it. After careful search I withdrew the staff, introduced a smaller one, which at once struck the stone, and keeping the point upon it I proceeded with the operation, and removed a stone weighing about three drachms.

I think in this case there must have been a pocket made by a fold of the bladder into which, at times, the stone slipped. Had I not kept the staff upon it, I might have failed to find it.

Another case deserves especial notice. The patient, who was a boy ten years of age, and had suffered much for eight years, had been long in the habit, during defecation, of introducing his finger into the rectum and pressing the stone upwards and forwards as the only means of obtaining relief.

In sounding I was obliged to resort to the same procedure to bring the stone in contact with the instrument.

From this patient I removed, first, an oxalic stone, which was lodged in a sort of pouch in the base of the bladder and ensheathed in a coat of mucus, which had become a membranous covering. I then removed a second smaller stone, which was lithic. The weight of the two was nearly three drachms.

Oxalic stones are said to be always solitary. This is a unique case, so far as I know, in this respect. The ensheathed condition of the oxalic stone probably admitted of the formation of the second.

Another case is worthy of note from the fact that it was the second operation by myself on the same patient. Three years before I had removed a stone weighing a drachm. The child was well for a year. For two years before the last operation he had been a great sufferer, and was so reduced as to require medical treatment for a month preliminary to the operation.

The second stone was rough, and weighed five drachms. They were both lithic. It is now about eighteen months since the second operation, and thus far he has been well.

I will add a brief record from my notes of a case of what has been termed spontaneous lithotomy, which fell under my care.

Sivas, July 18th, 1869.—Was called to see an American, aged fifty-five years, suffering from a very painful tumor in the perineum, which had first appeared three or four months before, and had confined him to the bed for some weeks. Has suffered from dysuria for the past three or four years.

On careful examination I found the tumor to be caused by a stone, which by exciting ulceration had worked its way out of the bladder, and was near the integument. I proposed to remove it the next day.

20th.—On the night after my visit the integument had given way, dislodging the stone into the bed of the patient.

Aug. 24th.—This patient brought the stone to me to-day. It was lithic, and weighed one ounce. He is suffering from valvular disease of the heart, and is dropsical.

This man's occupation kept him constantly on horseback, which may have been the exciting cause of the ulcerative process by which nature achieved this rare delivery.

Reports of Hospitals.

CHARITY HOSPITAL, N. Y.

CARBOLIC ACID FOR VENEREAL VEGETATIONS (CAULIFLOWER).

By EUGENE BOISE, M.D.

Having tried carbolic acid, locally applied, in the treatment of venereal vegetations of the cauliflower variety, I have been led to publish the results in a few of the cases.

Whether it possesses any great advantages over other modes of treatment I will not attempt to affirm; but in no case in which it has been thoroughly applied have I known it to prove other than satisfactory.

In the first and third cases recorded below, a mixture of camphor grs. xv. to carbolic acid ℥ j. was used; but the pure liquid acid acts more efficiently, and with little or no more pain. When applied, it seems quickly to penetrate through the entire substance of the vegetation, which shrinks in size and becomes white. After one or more applications the vegetations fall off, leaving no ulcer remaining.

Some of its principal advantages are:—I. The acid may be applied in a liquid state by means of a camel's-hair brush; II. It does not appear to have any tendency to spread beyond the point of application; III. It causes no perceptible inflammation of the surrounding tissues if carefully applied; IV. It causes very little pain, and finally, V. It seems to be effectual; the vegetations disappearing, and, as far as my observation has extended, not reappearing.

The number of applications necessary varies, of course, with the size of the vegetations. I have never

used it in those of large size, preferring to treat such by abscission, followed by the actual cautery.

Case I.—G. B., male, æt. 36, S. Eng., adm'tted to Hospital Nov. 17, 1870.

Patient gave no history or evidence of syphilis, but stated that he had "warts" under the foreskin of his penis. On examination, I found the prepuce drawn forward over the glans, and the parts somewhat swollen, so that the prepuce could not be retracted. Ordered cleanliness and emollient applications. After three days the swelling subsided, and the prepuce could be retracted, but with difficulty. Surrounding the glans at the corona was a group of vegetations raised from the surface from ¼ to ½ of an inch.

Applied for a few days tinct. thuja, but with no appreciable result. Then I applied by means of a camel's-hair brush—

℞ Camphor.....grs. xv.
Acid carbol.....℥ j.

M. Heat to deliquescence.

This was applied thoroughly to the surface of the vegetations in the morning, and once more at night. Next morning, part of them were gone, and the prepuce could be quite easily retracted.

Made one more application, and after twenty-four hours the vegetations were gone, leaving only slight traces of two or three, and no traces of inflammation.

Nov. 29. Patient discharged well.

Case II.—E. H., male, æt. 18, S. U. S. Admitted to Hospital, Jan. 3, 1871.

On admission showed several large vegetations on glans penis and inner surface of prepuce. Applied the actual cautery and destroyed them. After the consequent inflammation had subsided numerous smaller ones were seen. To these was applied pure liquid carbolic acid. In forty-eight hours they were entirely gone, leaving the surrounding tissues unaffected. Discharged, Feb. 16, cured.

Case III.—Wm. S., male, æt. 28, S. U. S. Admitted to Hospital, Feb. 8, 1871.

Had several vegetations of various sizes around glans penis.

Immediately applied the mixture of carbolic acid and camphor. One application caused the disappearance of only part of them, but the second application, made after an interval of three days, proved entirely successful.

Feb. 15. Discharged cured.

Case IV.—J. B., male, æt. 20, S. Scotland. Admitted to Hospital, Feb. 22, 1871.

Patient had vegetations around glans penis, unaccompanied by any other venereal disease. Were from ¼ to ½ inch in size. Soon after admission, pure liquid carbolic acid was thoroughly applied, causing the disappearance of nearly all.

A second application removed them entirely, and caused no consequent inflammation.

March 12. Discharged well.

Saw the patient two months after date of discharge. No reappearance of the vegetations.

Progress of Medical Science.

Graefe's "Peripheric Linear Extraction."—In an interesting article on "The Modern Operation for Cataract," by Haskett Derby, M.D., Boston, Mass. (*Boston Med. and Surg. Journal*), a full description of the "Peripheric Linear Extraction" in senile cataract, devised by the late Prof. Von Graefe, is noted; also, the importance of the after-treatment.

Dr. Derby says that too much stress cannot be laid on the importance of a good night's sleep following the operation. It is well to give the patient a dose of castor-oil the day before, the effect of subsequent narcotics being thereby rendered more uniform as well as sure. The evening of the operation chloral may be administered, care being taken that a German preparation, by preference Liebreich's, be used. The best vehicle for its administration is the syrup of allspice, syrupus pimentæ. Graefe was in the habit of giving from 72 to 96 grains at a dose in ordinary cases; while with people of intemperate habits he found at least two drachms necessary. Should the first dose prove ineffectual, he would give to the former class twenty-four, to the latter forty-eight grains more, four hours later. If injections of morphine had already been made to relieve local pain (from one-sixth to one-fifth of a grain in amount) with good effect, except as far as inducing sleep was concerned, he would give ordinary patients forty-eight grains, drinkers from seventy-two to ninety-six grains of chloral in addition.

An analysis of sixty-one cases of cataract, operated on by the method of Graefe, will appear in a future number of the *Boston Journal*.

A Disinfecting Solution.—Dr. Frank Wells, Cleveland, Ohio (*Boston Med. and Surg. Journal*), late Master of Obstetrics of the University of Vienna, gives the following formula for a disinfecting solution, used by all students and surgeons in the Vienna Hospital, who have examined any patient with a doubtful vaginal discharge:—

℞. Potass. hypermag., ʒ ss; aquæ destillatæ, lb. ij. M. The following solution is required to remove the stains of potash:—℞. Acidi muriatici, ℥ vj.; aquæ destillatæ, lb. xiv. M.

Craniotomy.—Melvin Rhorer, M.D., of Louisville, Ky., the Vienna correspondent of the *American Practitioner*, writes that he witnessed three interesting cases of craniotomy occurring in the clinique of Prof. C. Braun, at Vienna. The instruments used by Prof. Braun in these operations were the curved trepan, cephalotribe, and cranioclast, the latter a modification of Simpson's instrument. In all the cases, perforation of the head with the curved trepan preceded the extraction; and this instrument has been used by Prof. Braun for this purpose for the last twenty years.

Carbolic Acid in Intermittent Fever.—Dr. Freulich, of Melnik (*American Practitioner*), recommends this remedy in the treatment of obstinate intermittent fever, and especially in those cases where quinine has been unsuccessfully tried. He reports eight cases, and the results in all were satisfactory. In six cases a three-grain dose of carbolic acid was sufficient; in one case six grains; and in a particularly obstinate case nine grains were given. In none of the eight cases has the paroxysm returned, and the remedy has had no injurious after-effects. The carbolic acid was administered in about the following form:—℞. Infusion gentian, ℥ iv; carbolic acid, gr. iij; simple syrup, ℥ i. Signa: Take a tablespoonful three times daily. Dr. Melvin Rhorer, of Louisville, Ky., the translator of the author's paper, states that from the above-mentioned facts we may learn the following:—1st. Carbolic acid is a remedy for intermittent fever notwithstanding the length of time the patient has labored under the disease, and also in those cases which proved refractory to treatment with quinine. 2d. It requires only such doses to secure this result as are by no means dangerous or injurious. 3d. The necessary doses which have effected the cures amount, on an average, to four and a half grains. This remedy

may be particularly recommended to the dispensary practice, as it is about ten times cheaper than quinine. 4th. The success of the carbolic acid justifies the conclusion that the specific action of quinine in intermittent fever is also an anti-parasitic. 5th. And finally, it supports the supposition that all malarial fevers are due to a parasitic poisoning of the blood.

Overstrain of the Heart.—In an interesting clinical lecture on "Overstrain of the Heart, the consequence of physical exertion," by T. Clifford Allbut, M.D. (*Med. Times and Gazette*), stress is laid upon digitalis as one of the chief means of encouraging compensatory hypertrophy, and by means of nutritious diet (nitrogenous, Parkes), iron, and rest, a good deal may be done in the way of comforting these sufferers, if not to enable them to return to some light occupation.

Aperients in Eczema.—Dr. J. L. Nilton, Surg. to St. John's Hospital for Skin Diseases (*Med. Press and Circ.*), says that of all the aperients in Eczema, those containing magnesia seem to answer best. Henry's calcined magnesia is an excellent preparation; a teaspoonful taken in milk before breakfast will produce an action on the bowels which few other agents can effect. If the patient happens to be suffering from acidity, the beneficial action of the remedy is twofold. The efficacy of calcined magnesia is, however, very decidedly increased by the addition of a drug which is as unpleasant as it is valuable—the sulphate of magnesia.

The Chemical Nature of Tannic Acid.—Dr. Hugo Schiff (*Journ. Applied Chemistry*) recently presented to the Chemical Society of Berlin a paper upon the properties and composition of tannic acid, and brought forward some novel features. The subject of the true nature of tannic acid has occupied chemists for a long time. It is evident that crude tannic acid contains glucose, and that this is not an accidental mixture. Some chemists class tannin among the sugars, while others deny its claim to such a position, and hence the question, "What is the true nature of tannic acid?" still remains unsolved. Dr. Schiff thinks he has settled the point, by removing all the sugar, then transforming the tannin into gallic acid, and afterward reconverting it into tannic acid. He says that tannic acid is the anhydrous alcohol of gallic acid, and that the least purified tannic acid is the best. If we know the true chemical nature of tannic acid, some method may be devised of preventing this change into gallic acid, and thus be enabled to make extracts of bark in the forests that will bear transportation and preservation any length of time; hence the value of the purely theoretical observations of this author.

To Remove Nitrate of Silver Stains from Cloth.—Nitrate of silver stains are most effectually removed from white cotton or linen cloth, by applying to it a dilute solution of permanganate of potash and hydrochloric acid, which is to be followed by washing with hypophosphite of soda and plain water. This process renders the use of the highly poisonous cyanide of potassium unnecessary.—*Journ. of Applied Chemistry.*

Poisoning by Nitrate of Silver.—Dr. Ernest Hart, of London (*British Med. Journal*), says that milk is an excellent antidote to nitrate of silver, in virtue of its large proportion of suspended albumen. He uses it in lieu of salt and water, for neutralizing the excessive effects of even the mitigated caustic, when employing it locally on the mucous membrane of the eyelids.

Pelvic Abscess Resulting from Gonorrhœa.—Dr. W. H. Lathrop, Detroit, Mich. (*Western Medical Advance*), publishes a case of this character, occurring in a married lady about 22 years of age. In the treatment, great benefit was derived from the use of chloral. It was given in doses of from 10 to 15 grains. The local application of carbolated oil was attended with great relief to the external parts which were the seat of great inflammation, and were very sensitive to the touch.

Bleeding from the Ear as a Sign of Fractured Base of the Skull.—Mr. Rivington, of the London Hospital (*Med. Press. and Circ.*), states that several cases of bleeding from the ear after falls and blows on the head have been recently in the hospital, and illustrate the fact that little reliance can be placed on this symptom as a sign of fractured base of the skull, unless it be contended that fractures of a limited nature take place, implicating little more than the petrous portion of the temporal bone. The bleeding in these cases is sometimes profuse, and great difficulty exists in ascertaining its exact source.

The Estimation of Sugar in Diabetic Urine.—Dr. Meymott Tidy, of London (*Med. Press and Circ.*), proposes, for estimating sugar, Vogel's method: A potash solution, containing one grain of potash to every septem (7 gr.) of water, having been made, take ten septems of the urine, add ten septems of the solution; boil for one minute, dilute with distilled water in a 4-oz. vial, similar to those used for the test solutions, and then compare with the test solutions labelled as containing known quantities, until the exact tint is found. The small quantity of urine employed does not color the water so as to interfere with the test. If any precipitate is produced by boiling, it must be filtered. If the tint is more than that indicated by a two-grain standard bottle, it must be halved and diluted.

Dr. Tidy proposes to get rid of the trouble of the standard solutions by using gelatine colored of different tints as standards for comparison.

Impotence.—William Acton, M.R.C.S., in his work on "The Functions and Disorders of the Reproductive Organs in Childhood, Youth, &c.," speaks with some favor of cantharides and of phosphoric acid in the treatment of impotence. Strychnia, also, he considers to be a good tonic, and he much approves of electricity, occasionally, applied under the direction of a medical man. Bands worn promiscuously round the neck, etc., are worse than useless: they are often injurious.

Cauterization of the Urethra.—Wm. Acton, M.R.C.S. (*Functions and Disorders of the Reproductive Organs*), thus performs cauterization of the urethra: He employs a syringe made of stout glass, and with it injects a ten-grain-to-the-ounce solution of nitrate of silver. The instrument is passed down the urethra, the patient standing against the wall. Within half an hour the patient may return home. Relapses do not often take place after this treatment, and he never employs any other plan. His instrument is obtainable at Fergusson's, Giltspur street, London. Tea, coffee, and tobacco, he looks on as so many poisons for persons suffering from nervous depression from emissions. In his work, Mr. Acton quotes from a letter of the late Sir B. Brodie to a patient who consulted him, "You must not expect to be free from nocturnal emissions until you are married," without any comments.

Thermal Baths of High Temperature.—Prof. J. L. Cabell, of the University of Virginia (*Rich. and Louisville Med. Journal*), refers to the statement of Dr. A. Kessler, in the *N. Y. Med. Journal*, that baths of temperature above 100° Fahr. often injure the treatment of

rheumatic and arthritic affections by checking the discharges from the kidneys and alimentary canal," and states that at the Hot Springs of Virginia rheumatic and arthritic cases are treated annually with the best results, by the hot spout chiefly, and some by the alternate use of spout and immersion baths of 106° Fahr.

He also states that the statement that the "boiler bath" (106° Fahr.) could injure the treatment of rheumatic affections, or do harm to any except a few special classes of cases, would excite a smile of incredulity at the Hot Springs, when the residents and *habitués* have seen so many invalids take this bath daily for four or five weeks, or longer, not only without injury, but with marked and wonderful benefit.

It would be well to prohibit its employment in the case of persons liable to either cerebral or pulmonary congestions, or afflicted with cardiac trouble, and in any case to recommend it to be used with great precautions, under the supervision of a medical adviser.

Change of Life in Health and Disease.—The reviewer of Dr. Tilt's work on "Change of Life in Health and Disease" (*Am. Practitioner*) refers to the ganglionic system as a very common seat of those nervous affections which are incident to the change of life. In 500 women treated by Dr. Tilt for various affections at this period of life, this system bore the onus of the disease in 406 instances, in the greater number taking the form of epigastric faintness and sinking. The brain rarely escapes disorder in women who suffer at the change of life. In 500 women treated by Dr. Tilt, nervous debility was encountered 459 times, headache in 208, and various other symptoms of brain disturbance 594 times; or, in other words, 500 women divided 1,261 forms of cerebral disease. In his thirty-first table he gives the proportion of cases in which the gastro-intestinal organs were affected, and shows that they were in the proportion of 354 to 500. The obstinacy of the biliary symptoms was the chief feature in many of the cases.

Dr. Tilt asserts that debility underlies chlorosis, palpitations, and hysterical asthma. The remedies are sedatives, alkalies, diaphoretics, and, above all, tonics. He cannot sufficiently praise the utility of sedatives applied at the pit of the stomach. Belladonna or opium, or atropia very cautiously, or chloroform, may be rubbed over the epigastrium or used in the form of a plaster. Opium, hyoscyamus, laurel-water, or some other anodyne, is demanded internally, and respect must be constantly had to the state of the bowels.

Pregnancy without Menstruation.—Dr. James Young (*Edinburgh Med. Journal*) lately read to the Obstetrical Society of Edinburgh some statistics, showing how frequently pregnancy had occurred where the woman had never menstruated more than once or twice during ten or twelve years, and when six or eight children had been born. Dr. Pridie said he had attended a girl in her first confinement who was fifteen years of age, and had never menstruated; and he knew of a lady who had been married for twelve years, had seven children, and had only been seven or eight times unwell.

Carbolic Acid in Vascular Keratitis.—Dr. C. Hixon (*Chicago Med. Examiner*) has successfully treated a case of vascular keratitis in a female aged twenty-three years, of delicate frame and rheumatic diathesis, by applying locally, for three weeks, two drops of a solution of carbolic acid in glycerine, of the strength of sixty grains to the ounce of glycerine. This he had frequently used before in ulcers of the cornea that were indolent and very painful, and with the very best effect. He believes this practice originated with Dr. Williams, of Cincinnati.

The general treatment consisted of iron, nitric acid, and quinia; and to meet the rheumatic element in the case the following formula was used:—℞. Vin. colch. sem., ext. phytolac. āā f. ℥ ijss.; tr. stramonium, f. ℥ j.; tr. aconit. fol., f. ℥ ss. Sig.: A teaspoonful three times daily. He reports this case, believing it to be the first case where carbolic acid has been used in the treatment of vascular keratitis.

Management of Acute Dysentery.—Dr. N. S. Davis, Chicago, Ill. (*Chicago Med. Examiner*), recommends the subjoined treatment in acute dysentery:—℞. Ol. terebinth, tinct. opium, acacia, sacch. alb., aqua mentha, āā ℥ iij. M. One teaspoonful every four hours. And a solution of carbolic, as follows:—℞. Carbolic acid, cryst. gr. vj.; tinct. opii camph., ℥ iss; glycerine, ℥ ss; water, ℥ ij. M. One teaspoonful every four hours, alternately with the emulsion.

Bromides in the Summer Complaints of Children.—Dr. F. G. Williams, of Watertown, Wis., writes to the *Chicago Medical Examiner* that he has as much confidence in the use of bromide of potassium in the summer complaints of children as Dr. Caro, of New York, who has long advocated its use. At first Dr. W. used the bromide alone in simple solution, gr. xx. to gr. xxx. to the ℥ j. Now he is in the habit of using syrp. rhubarb as a menstruum. ℞. Syrp. rhubarb, ℥ ij, potass. brom., ʒ ij. M. S. gtt. x. to xx. every one, two, or three hours. If there is much pain or restlessness, from one-half to one grain morph. sulph. is added.

One of the most reliable stimulants is this:—℞. Hoffman's anodyn. pategoric, tinct. camphor, āā ℥ ij. Dose—from ℥ j to ℥ iij, moderately diluted.

When the case proves rebellious, the vomiting and purging resisting the treatment just described, the following formula is a valuable auxiliary stimulant:—℞. Tinct. lavend. comp.; tinct. cantharid., āā ℥ iij; tinct. nuc. vomic. (alcohol), ℥ ijss; diospyros virgin. (fruct. immat.) ℥ iijss; tinct. capsic., ℥ ij; tinct. opii (laudanum), ℥ iss; tinct. rhubarb. Dose—from half an ounce to one and a half, mixed with a small quantity of water.

Chorea.—Dr. A. J. Gupton, New Providence, Tenn. (*Nashville Journ. Med. and Surgery*), reports a case of obstinate chorea in a woman, when four months *enceinte*, who was relieved by the following treatment:—℞. Quevennes iron, gr. xxiv; extr. hyoscyamus, gr. xij; extr. cannab. indica, gr. vj. Ft. mass, and divide into 12 pills. S—one three times a day. This treatment was continued for thirty days, at the end of which she was entirely well. She went her full term, and was delivered of a sound, healthy child of 6½ lbs. Her general health kept good, with no symptoms of returning chorea until the next year, when being again pregnant, of about the same length of time, she was suddenly seized with chorea again. He was firmly persuaded that the exciting cause of the first attack was the gravid uterus. Another coming on just at the same time in pregnancy, convinced him that his conjectures were correct. He therefore reasoned that the nerves which supply the uterus were excited by the growth of that organ, and, consequently, took on inordinate action, producing unusual activity in the sympathetic system, thus involving the brain and the whole nervous tissue, and chorea was the result.

He put her upon the treatment as before, with the addition of strychnia. On the fifteenth day of her treatment she went home nearly well. The treatment was ordered to be continued for thirty days longer.

Atheroma in the Arteries.—Dr. Moxon (*Guy's Hospital Reports*) shows, that what is called atheroma of the arteries is sub-inflammation of various degrees, of which the lower degrees end in fatty degeneration of the coats, along with the inflammatory products, and that the determining cause of the occurrence of this change is mechanical strain. This, he considers, by no means interferes with any belief that a general altered condition in gout, syphilis, etc., may lay the coats of the vessels more open to suffer from the said strain, and he is disposed to think, though no one has yet shown it to be true, that they do so.

The Properties of Horse-Mint.—Dr. W. C. Buckley states that the oil of this variety of mint is a powerful rubefacient. During the prevalence of the epidemic typhus in Philadelphia, which occurred several years ago, Dr. E. A. Atlee was much pleased with the effects of the oil, applied in the form of a liniment, in the treatment of that malady. His formula was as follows: R. Oil of horse-mint, ℥ ss; tincture of camphor, ℥ ij; laudanum, ʒ ij. M. During the sinking stage, the arms, legs, and breast were bathed, and, shortly, a comfortable glow succeeded.

Typho-Malarial Fever.—Dr. D. W. Hand, of St. Paul, Minn. (*Northwestern Med. & Surg. Journal*), regards the fever which has been so prevalent in St. Paul, during the past six months, of a typho-malarial character. The fatality was not great, although the epidemic was widespread. In his own practice he states that he saw at least 100 cases, with only three deaths. It was found that quinine, as an anti-periodic, was useless; as a tonic and stimulant, however, it was useful: and the treatment found best adapted to most of these cases was quinine, one grain twice daily; dilute hydrochloric acid, ten to twenty drops every four to six hours; with an opiate at night to produce sleep and control the diarrhœa. The necessity of keeping up nutrition by milk, beef tea, oatmeal or flour gruel, etc., was insisted on, and was an important part of the treatment. Stimulants were rarely required.

Amaurosis Absolute from Intra-Cerebral Tumor.—A case of this character, occurring in a youth aged seventeen years, who early contracted the habit of masturbation, is published by Prof. J. F. Noyes, of Detroit, Mich., in the *Detroit Review of Medicine and Pharmacy*. At the autopsy, five hours after death, on cutting away a very thin slice of brain, a large tumor was discovered, directly over and resting upon and springing from the right lateral ventricle. The tumor was easily enucleated with the finger, the brain substance immediately around it being softened to the consistency of thick cream. The tumor was darker than gray substance, and quite vascular. It measured four inches in diameter, and weighed five Troy ounces. His mother died of cancer.

Examinations for Life Insurance.—Dr. S. M. Bemiss, of New Orleans, La. (*Am. Practitioner*), publishes a unique case of sudden death of an applicant for life insurance. The patient, aged 61, was examined three days before his death, and in a letter to the home office of the St. Louis Mutual Life Insurance Co., Dr. Bemiss wrote that he had discovered an abnormal sound accompanying the heart's systole. It was very distinct over the apex and upward over the uncovered portion of the heart. The murmur was somewhat rough in character. The lesion was thought to be a mere roughening of the endocardial surface, without valvular insufficiency. The applicant retired at night to his state-room on board the steamship, while at sea, and not making his appearance in the morning, his friend found that he was dead. No post-mortem was made, and the body was buried at sea.

Dr. Bemiss believes that the following conclusions appear to him to be fairly deducible: *First*, that innocuous and tolerated cardiac murmurs cannot be discriminated from those which are mischievous and dangerous, except in rare instances, and then only after long-continued and most careful observation. *Second*, these "rare instances," in which, even after the most satisfactory observation, we may venture a favorable prognosis with any feeling of confidence, are restricted to that class of patients whose youth and health exclude any liability to degenerative changes in the heart's tissue. *Third*, that in any event or under any circumstances the medical examiner for an insurance company is obliged to give his employers the benefit of his doubts, and therefore to disapprove all applications from parties who are found to have organic heart-murmurs, although by such a course he may occasionally do an applicant injustice.

Treatment of Varicose Veins.—Mr. Henry Smith, of King's College Hospital, London (*Am. Practitioner*), adopts the old plan of obliterating varicose veins by acupressure with many pins. As many as ten perhaps are passed well under the vein, at distances of two or three inches apart, with a hare-lip suture placed above. The operation is quite painless, and such cases are treated as out-patients.

The Operation for Ovariotomy.—Dr. Meadows and Mr. Christopher Heath, of the Hospital for Women in Soho square, London, have been very successful with this operation. The practice at Soho square is to tie the pedicle with whipcord, to cut short, and return. Silk sutures are used to the wound in the abdomen, and a linseed poultice immediately applied.—*Am. Practitioner*.

Pulmonary Consumption.—Dr. Thomas B. Peacock of London (*St. Thomas Hospital Reports*), in his excellent "Remarks on the Different Forms of Pulmonary Consumption," states that those cases do best which improve only slowly, and he has learned by experience to distrust a too rapid amendment, and that it is better in such cases to reduce the diet and other tonic measures.

Nitrate of Silver in Epilepsy and Chorea.—In 1802, Dr. Sims, of London, read a paper before the Med. Soc. of London, on the great value of this remedy in epilepsy and chorea. This paper, it is believed, contains the earliest notice of the efficacy of this salt in these diseases.

The value of elaterium as a purgative in dropsy was mentioned by Dr. Sims as early as 1798.

On the Capillary Circulation.—Dr. J. Burdon Sanderson, of London (*Med. Times and Gazette*), has discovered that the maintenance of the capillary circulation is wonderfully dependent on temperature; and in particular, that any rise of temperature above the normal is in the highest degree injurious, partly, perhaps, from its direct influence on the blood corpuscles, but mainly because it produces changes similar to those he has already noticed as occurring in batrachians after long exposure, viz., arrest of the capillary blood-stream, and escape of the liquor sanguinis and corpuscles into the surrounding tissue.

A Large Encephaloid Tumor.—Dr. C. C. F. Gay, of Buffalo, N. Y. (*Buffalo Med. & Surg. Jour.*), reports the case of a male child, 8¼ years old, with an encephaloid tumor weighing 36¼ pounds. Its growth commenced at the age of 2½ years. It was firmly attached to the left lumbar region. Dr. Gay believes this abdominal tumor to be the largest growth in a child of this age, of

which there is any record. That life could be sustained in a child of this tender age for a period of years, embarrassed by this immense growth, which never even interfered, by its pressure upon the intestines, with the regular performance of their function, he considers remarkable.

Large Doses of Chloral.—Instances have been recorded in which large doses of hydrate of chloral have been taken with no bad permanent effect, particularly the following: One related in the *Lancet*, in which no less than seven drachms were taken, with only the inconvenience of a temporary loss of power in the legs. The patient in this case was a singularly sleepless man, to whom chloral at first was a delightful remedy, until it began to lose its effect, when he took dose after dose in the dark until on this occasion he took seven drachms.

Another case of poisoning by chloral is reported by Dr. P. C. Williams, of Baltimore (*Balt. Med. Jour. and Bulletin*). It was supposed that the patient took about six hundred grains, the only appreciable effect of which was to produce most profound coma lasting eighteen hours, and ending in complete recovery without any medical treatment whatever during the state of coma. Dr. Arnold, of Baltimore, regarded the favorable result of Dr. Williams's case as due to the slowness of absorption by the stomach, and to the rapid elimination of the poison from the lungs and skin. He thought it probable that the chloral remained inert in the stomach, only enough being absorbed to keep the patient in a state of stupor.

Cancer of the Liver.—Dr. N. S. Davis, of Chicago, Ill. (*Chicago Med. Examiner*), has realized, in the treatment of this disease, the most benefit from some of the arsenical preparations with conium. The following is a good formula: ℞ Arsenite of soda, gr. iv.; ext. conium, ʒ iss. Make a mass and divide into sixty pills, one three or four times daily. Among the best anodynes to relieve pain are fluid ext. hops and lettuce. In this way the fatal result may be delayed.

On Tincture of Hyoscyamus.—Dr. M. Donovan (*Med. Press and Circular*) is convinced that the medicinal properties of hyoscyamus reside exclusively in the plant of two years old, and that the plant of one year's growth is useless, and gives the following easy test by which the age of the plant from which a given tincture is to be prepared can be determined: Add a little of the tincture to a glass of water; if the mixture becomes slightly milky, the tincture was made from a two years' old plant; if it remains transparent, the plant was in its first year.

Laceration of the Rectum.—M. T. Taylor, M.D., of Fishersville, Jefferson county, Ky. (*Rich. and Louis. Med. Journal*), reports a serious case of this character, in which a farmer, in attempting to descend from a stack of grain, slipped down upon the handle or blunt end of a pitchfork, one and a half inch in diameter, it entering the body about one-half an inch behind the *anus*, and passing upward to perhaps an inch from the point of entrance, where it struck the posterior portion of the *rectum*, lacerating the bowel up to a point near the *sigmoid flexure*. The depth to which the fork penetrated, as evidenced by the blood and shreds of areolar tissue on the handle, measured nearly eight inches. On a subsequent exploration with the probe and finger, the bowel was found to be ruptured to a point near the sigmoid flexure, or as far as the course of the gut corresponded to the general direction of the wound.

There was no loss of sensation in the lower extremities; passive motion gave considerable pain, but there was but a little while the patient was perfectly at rest. From the second to the twentieth day the patient continued to improve uninterruptedly, at which time he was able to walk around, and by using a pillow could sit on a chair. It is now more than a year since he was discharged, and he experiences no inconvenience from the wound, except that he has but little power in controlling his rectum when it is filled with liquid fæcal matter. Flatus passes from his bowels without his having any control of it whatever.

This case is remarkable as terminating in complete recovery where the wound was so extensive, the rectum being lacerated nearly its entire length.

The Average Height and Weight of Men.—Dr. Beddoe, President of the British Anthropological Society, states, as the result of several thousand careful measurements, that the average height of adult Englishmen, and also of adult Irishmen, is between five feet six and five feet seven inches, while Scotchmen are, on the average, half an inch taller. The average height of Germans is about the same as that of Englishmen, and the average of native Americans will not surpass that of Scotchmen. The average weight is not much above 140 pounds.—*Western Monthly.*

A Case of Triplets.—Dr. T. G. Comstock, of St. Louis, Mo. (*American Observer*), recently delivered two male and a female infant, from a multipara, in the eighth month of pregnancy. The three children weighed altogether about 18 pounds. At the present time they are all, together with the mother, perfectly well. The peculiar feature of this case was the absence of all regular labor pains for nearly six hours after the birth of the first child.

On Suppression of Prostitution.—In an able paper on the "Regulation and Suppression of Prostitution," by George Andrews, Esq., late Judge of the Supreme Court of Tennessee (*Chicago Medical Examiner*), he believes that the right to arrest suspected prostitutes and make physical examination, or enforce medical treatment, does not exist. His opinion is, that the license system, as applied to our large cities, and to be enforced by our municipal authorities and political police, will be found to be not only a humbug, but a nuisance.

One word as to the rights of the citizen and property holder. A bawdy-house is a nuisance at common law, as well as in fact. It is a nuisance which affects the comfort and well-being of the neighborhood in which it is located, and the value of all the neighboring property. By licensing such a nuisance, the Legislature cannot deprive the citizens who are injured by it of their right to have the nuisance abated or enjoined, or to recover damages against the party maintaining it. The Legislature, by granting a license, may deprive the act of keeping a bawdy-house of its criminal character, but does not thereby deprive the citizen of his remedy, done to him or his property.

Sarcoma very seldom Infects the Lymphatic Glands.—Dr. Billroth, the eminent pathologist of Vienna, was one of the first to draw attention to the fact that sarcoma, in its spread, very seldom infects the lymphatic glands.

Dr. Henry Arnott, Assistant Surgeon to the Middlesex Hospital, London (*Medical Times and Gazette*), has examined a large number of cases of malignant growths with special reference to this point, and his observations, so far, accord entirely with this view.

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HOW TO ENFORCE DISCIPLINE.

Next in importance to determining where a line between the regulars and irregulars should be, is the question what authority shall draw this line. It would seem very easy at first to settle the point, did we not acquaint ourselves practically with the difficulties in the way. The answer would be that the interpretation of the spirit of the code should be entrusted to the societies. This is a perfectly natural conclusion, and one which should be backed up by experience. But that this has not been so we have too many proofs. The degree of discipline which should be maintained by the respective societies varies in different localities. In some it amounts to no discipline at all. For instance, at a late meeting of the American Medical Association, it was deemed advisable by a county society to propound the question, whether its members should consult with one who openly affiliated with quacks! In other places, with a pretension to keep up strict discipline, there is a seeming powerlessness to do so: witness the Niagara County Society of the State, the majority of whose accredited members vote down any disposition on the part of the right-minded minority to investigate charges, and purge the association of quacks. But this state of things is not alone peculiar to that section. We have it in a less marked degree in almost all the medical societies of the land, the reasons for which are not well explained in accordance with justice and right. In such associations there are always individuals who boldly defy the ordinary rules of discipline and still hold good their membership. For fear of offending these parties certain members of the association decline to take the initiative, and the matter goes by default, the offender taking advantage of this delicacy in every covert way imaginable. If, on the other hand, the plaintiffs make their charges, the defendant at once assumes the role of a martyr, and makes the most of his assumed position by calling to his aid the secular press. We may refer, in this connection, to the case of Gardner and the New York Academy of Medicine. The martyrdom of this gentleman paid so well in the shape of a newspaper notoriety that others were ready to follow in the wake, more especially as it appeared from the ruling in the case in question, that nothing more than a temporary suspension was to be dreaded. One member in particular, rising to a question of privilege, voluntarily threw himself upon the altar, still warm with the fires kindled for his predecessor. He did not wait for charges, but was conscientious enough to make them for himself. He stated in substance that he had noticed a certain coolness of members of the Academy towards him, but as he was in good and regular standing, paid his dues dutifully, was a partaker in the discussions, struggled hard in his profession elect, he could not understand the reason for the said coldness unless it was that he was in the habit of consulting with hon œopaths. If this were true, he would state that he did it in accordance with the dictates of his conscience, etc., etc., and that he should continue to go on as he had begun. The trick succeeded in so far that he had a paragraph in the daily papers, proving him to be a member in good standing, a partaker in the discussions, and one who labored hard in his profession; but the Academy took no notice of his communication, and, as far as we can recollect, he was not even treated to temporary suspension. All this occurred some time ago, but the same spirit is still being fostered by certain ambitious aspirants for notoriety. These gentlemen are well enough known to their associates, and it has become a rule, more for the sake of avoiding unpleasantness than for the sake of justice, to let them alone. But what must be the result of this course in the end? We are constantly in the way of hearing, that this man advertises himself in the newspapers; that this one takes patients from his professional brother; that this one has been known to misrepresent his cases; and this one to peddle falsehoods concerning another. All these offences are acknowledged to be intentionally and openly committed, and yet in many of our societies these members hold their places in good and full standing. In view of these facts, can any one acknowledge, taking many of our societies as criteria, that the profession is unable to draw the line between the regular and the irregular?

All other things being equal, the local societies are the only proper tribunals before which all doubtful cases should be adjudicated. If these institutions are unwilling to have the lines sharply and definitely drawn, we cannot see how the open violations of the code are to be punished, and how those at a distance are to know who can be trusted, and who cannot. This indisposition to bring members to account, propagates itself from local societies to general ones. Many members in questionable standing at home, because there are no specific charges made against them, are allowed to represent, away from home, their local associations. Thus a number of persons, not at all entitled to the distinction, crowd themselves into the mem-

bership of the American Medical Association, and parade their connection with the same, in a way that is not only offensive, but defiant. What is the result? The American Medical Association, in view of this fact, has lost the confidence of the profession in its ability to settle the status of its individual members. It has gone so far as this, that a membership of the American Medical Association means little or nothing.

The proper starting point for discipline being in the local societies, those identified with the county are, perhaps, the most suitable and available. When these societies throughout the country can guarantee that every member is what he should be, we can have the means of drawing our line and of keeping it straight. It is not enough to know that a practitioner has this or that suspicion entertained of his character, but specific charges should be openly made, and as openly met. If the members of the society are afraid of offending this or that party, in bringing charges which they can substantiate, they are not only false to the society to which they belong, false to the best interests of the profession, but false to their own sense of honor and justice.

We are constrained to make the foregoing remarks, because we are often appealed to by parties in different sections of the country, as to whether this or that be professional. Some of these questions are simple enough, the flagrancy of the offences showing only the degree of professional accountability in a particular region; others are of more difficult solution, but all could be properly answered if the local societies had backbone enough to take hold of them. We have spoken advisedly upon the subject of discipline, because we are kept informed, in one way and another, of the tricks that are played by the various individuals who straddle the fence of propriety. It is needless to enumerate them here, as they are not peculiar to any locality, but, in the aggregate, they present a sorry picture for the conscientious and thoroughly straightforward practitioner to contemplate.

Upon the capability which the respective societies have for grappling with the numerous questions of ethics which may come up, depends the integrity, the trustworthiness of a medical registration. The success of the registration of the physicians of New York and vicinity, is due almost entirely to the manner in which the Medico-Historical Society has drawn the line; and so authoritative has this register become, that when a name is omitted, the inference is that such a party has, in some way or other, violated either the spirit or letter of the code. If each county society throughout the Union could take our own county society, and the Medico-Historical, as its models, and as fearlessly stand up for justice to such as desire to be irregular, there would be no question either as to how, or by whom, discipline should be enforced.

If we show our power and our disposition to decide who are regulars and who are quacks, and promptly and fearlessly punish every breach of discipline, we can obtain a truly reliable medical registration. It might be argued, that there are many worthy practitioners who do not belong to any medical organization in their vicinity, and who are, in consequence, not subject to this special jurisdiction. This must be admitted; there may be reasons, peculiar to themselves, which prevent their joining, and there is no moral law which can compel them to act contrary to such convictions. There is but one way to reach such, in determining their right to be numbered among the respectable portion of the medical community, and that is, the endorsement of the Secretary of said county society. If the outsider cannot obtain such a guarantee, we fail to see how he can prove that he enjoys the confidence of his associates. A much better way, generally speaking, would be to overcome any difficulty by becoming a member of a local society, as, by a failure so to do, there is always more suspicion that there is something wrong with the individual, rather than with the association.

Reviews and Notices of Books.

ON THE PHYSIOLOGICAL EFFECTS OF SEVERE AND PROTRACTED MUSCULAR EXERCISE; WITH SPECIAL REFERENCE TO ITS INFLUENCE UPON THE EXCRETION OF NITROGEN. By AUSTIN FLINT, Jr., M.D., Professor of Physiology in the Bellevue Hospital Medical College, New York. Reprinted from the New York Medical Journ., June, 1871. New York: D. Appleton & Co., 1871. 8vo. pp. 91.

This monograph is an account of observations made upon Mr. Weston, the celebrated pedestrian, with a view of determining the amount of nitrogen excreted in urine and fæces, as the result of severe muscular exercise. These observations extended over a period of fifteen days, which were divided into three distinct periods: the first of five days of ordinary and moderate exercise before a walk; the second of five days during which Mr. Weston walked three hundred and seventeen and a half miles; and a third period of five days of almost complete repose. It was the intention of the pedestrian to walk four hundred miles in five consecutive days, but he broke down during the night of the fourth day, completing the number of miles previously stated. Every care was taken, assisted by Profs. Dalton, Doremus, Hammond, A. B. Mott, Van Buren, and others, to weigh the food and to take into account its quality, to note modifying influences of sleep, exercise, etc., and to analyze the fæcal and urinary discharges, etc., etc. The results of these labors are presented in every detail, and many of the conclusions are of great interest to the physiologist. We cannot present more than a few of these, leaving such of our readers as are specially interested in the subject to study it in all its bearings. We shall simply give the conclusions more especially arrived at as the result of a study of the five days of the walk: "First: The absolute discharge of nitrogen by the urea and fæces for each day, without considering the nitrogen of the food, is in a nearly uniform proportion to the number of miles walked. This proportion is but little disturbed if it be assumed that the influence of the ingestion of nitrogen is prolonged for a period of from twenty-four to

forty-eight hours. Second: During the walk of three hundred and seventeen and a half miles in five consecutive days, for every one hundred parts of nitrogen taken in with the food there were discharged in the urea and fæces 174.81 parts, against 95.53 parts per hundred for the five days before the walk, and 91.93 parts per 100 for the five days after the walk. Third: The actual loss of weight during the five days of the walk was 3.450 lbs. * * * The total quantity of nitrogen discharged in the urea and fæces during this period in excess of the nitrogen taken in with the food, was 633.80 grains. Assuming that three parts of this nitrogen represent the waste of 100 parts of muscular tissue, the loss of muscular tissue, calculated from the nitrogen excreted, would amount to 3.018 lbs., leaving only 0.43 of a pound unaccounted for, which might be fat or water."

PARALYSIS AND OTHER AFFECTIONS OF THE NERVES, THEIR CURE BY VIBRATORY AND SPECIAL MOVEMENTS. By GEO. H. TAYLOR, M.D. New York: Samuel R. Wells. 1871. 12mo. pp. 149.

THIS little book, which the author is pleased to call a treatise, has been written for the purposes of showing "the uses and importance of motion in the living body as contributing to its evolution of power; to explain the methods and rationale of the direct application of force, as in the form of vibratory motion, for curative purposes; to point out the uses and limitations of other exercises on diseases of the nervous system, and to represent the success of the remedial method, based on the direct use of force, in cases of paralysis and other forms of disease of the nerves that have been prolonged and proved intractable to other means." The above quotation is from the author. Every practical man is prepared to appreciate the value of motion in all cases of paralysis, and the author has done nothing more than tell an old story in a new and peculiar way, the principal object appearing to be to prove that it is very necessary to treat all diseases of the nervous system by motion, that motion can only be effectively applied by an apparatus, and that the apparatus devised by the author is the only kind constructed on sound philosophical principles.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 1, 1871.

DR. E. R. PEASLEE in the Chair.

THE following gentlemen were elected Resident Fellows:—Drs. J. Ackerman Coles, Josiah C. Nott, James V. S. Wooley, and Edward J. Hogan.

DR. E. R. SQUIBB was appointed Anniversary Orator for November next.

PARALYSIS OF THE FIFTH CEREBRAL NERVE.

DR. HENRY D. NOYES then read a paper on "Paralysis of the Fifth Cerebral Nerve, and its Effects," of which the following is an abstract:—

The lesions which accompany paralysis of the fifth or trifacial nerve, and which were first carefully studied by Magendie, still attract the attention of physiologists. His experiments on animals were repeated by Bernard, Snellen, Meissner, Buttner, and others; and the same phenomena have been repeatedly observed in the human subject. These symptoms are, in brief, loss of sensibility on the cheek, the side of the head and upper part of the neck, on the corresponding half of the buccal and nasal cavities and on the eye-ball and conjunctiva, and in addition, loss of power in the muscles of mastication. As a consequence of the impaired innervation, the side of the tongue sometimes loses its epithelium and the gums may ulcerate, an offensive discharge takes place from the nose, and the cornea often undergoes suppuration and destruction.

The injury to the cornea has been the feature which has excited the greatest interest. The precise reason why it occurs has not been uniformly agreed upon. By some it has been thought to depend upon the intrusion of foreign bodies which are not perceived by the patient, but may irritate the eye and excite keratitis. Others claim that the lesion is the simple result of the nerve injury. Others assent to the neural explanation, but do not admit that the sensitive fibres of the nerve are at fault, but that the cornea is damaged only when fibres of the sympathetic contained within the nerve have been destroyed.

Again, the cornea, it has been asserted, would be inflamed only when the injury included the Gasserian ganglion. It would appear from some cases that a morbid process in the peduncle of the cerebrum was competent to cause the trouble when the ganglion of Gasser was intact.

My attention has been called to this subject by having had some experience with these cases, and at the present time I have one under observation which I propose to relate in detail. To other cases I shall briefly allude.

Before narrating the case, Prof. Noyes called attention to an interesting article by Dr. Rosenthal, in the *Medizinischer Jahrbücher, Band* xix., *Heft* ii. *und* iii. S. 163, 1870, on "Symptomatology and Diagnosis of Tumors at the Base of the Brain and of the Pedunculus Cerebri." Two cases are given and their autopsies—and the title of the one appropriate to his present purpose is: "Chronic headache and vertigo; paralysis of the right trigeminus nerve (anæsthesia dolorosa), of the ocular muscles, of the right facial nerve (loss of farado-muscular contractility, and preservation of galvano-muscular contractility); sloughing of the cornea; slight paresis of the left leg; carcinoma at the base of the brain; lesion of the ganglion of Gasser."

The cornea may preserve its integrity for a long time after paralysis has taken place. Some special disturbing cause seems necessary to induce the inflammatory process. An instance of this kind was a youth about fourteen years old, who came to the New York Eye and Ear Infirmary, and was under the care of Dr. H. B. Sands. He had had paralysis of the fifth nerve for several years. At the time when I saw him the cornea was suppurating. The reason for this occurrence seemed to be that he had been out of doors during extreme cold weather, for the thermometer at that time ranged about 20° below zero of Fahr. Possibly if his eye had been bound up, he might have successfully resisted the depressing effect of the cold.

If the disease has made considerable advance, protection of the eye does not suffice to arrest it. In truth, prognosis then is highly unfavorable. I have seen, it may be, five or six cases of this kind, and in all but one the eye was destroyed.

I will relate the history of two cases, one of which shows how unavailing was the effort to save the eye by various protective devices, and the other which I exhibit to your notice has a more cheerful interest, because the treatment has proved of signal benefit.

CASE I.—Paralysis of the fifth and partially of the seventh nerve. Suppuration of cornea, loss of eye—death, April, 1869. Michael McC., æt. 33, Ireland, a robust, rather plethoric man, who never had syphilis nor rheumatism. Is a milk-dealer, and is engaged at

his business from 2 to 8 o'clock in the morning. For a year had severe and persistent headache on the right side, sometimes a little dizzy, had no nausea. Eight months ago, after a severe attack of pain running from the right ear to the top of the head, found the right half of the face numb. Three months ago right ear became deaf, had tinnitus; within a month hearing is a little better. Within a month noticed that lids did not shut so perfectly over right eye as before. Within two weeks this eye became sore.

About two years ago had a tumor called cancerous removed from the right half of the lower lip by means of caustic paste. There is now a deep notch, but no sign of morbid infiltration.

There is complete insensibility to touch on the right side of the scalp as far back as the coronal suture: on the right half of the forehead and temple to about the middle of the zygoma: on the cheek in front of this region as well as on the side of the nose and the lips. The side of the chin has been in the same condition, but has in part recovered. The right auricle and the neck for two inches below were insensible, but have within three weeks recovered. The conjunctiva is reddened and slightly edematous—can be touched with entire impunity; the cornea equally obtuse, and for almost its entire surface denuded of epithelium; the tissue hazy, the pupil active, perception of light quick, a purulent discharge comes from the eye, there is no pain and no intolerance of light. The right half of the tongue, roof of the mouth, gums, and interior of the nostril, are anæsthetic. The senses of taste and smell are much impaired. A bad odor, as of ozœna, comes from the nose. For six months the right half of the tongue has felt as if it had been burnt. Is able to chew, but I find the right masseter extremely small; when he forcibly shuts his jaws the contrast is very strong between the full, hard belly of the left masseter and flatness of the right.

Such are the symptoms of lesion of the fifth nerve, and they indicate the comprehension of all three of its subdivisions, as well as of at least part of its motor-root.

The signs of impairment of the facial nerve are, enfeeblement of the orbicularis muscle, that in laughing the right side does not draw up as much as the left. He can twist the face in some degree to the right side, and can make the tarsal edges of the eyelids meet, but the effort needful to do it wrinkles the eyelids of the other eye extremely. When not making special effort, the lower lid droops so that its border falls away from the globe and to a lower level than that of the other eye.

In the right ear the membrana tympani is transparent, the light spot normal; can see the inner wall of the middle ear, and that it has a deep-red color. Hearing damaged so that a watch is heard only when it touches. Eustachian tube was not explored. Has no difficulty in swallowing, nor in speaking. There is no impairment of sensation or motion on either side of the body. Vision of the left eye, 20-20; to the ophthalmoscope the optic nerve shows some hyperæmia and swelling; its edges are pretty clear.

The usual treatment for suppurative keratitis was employed, viz.:—atropia, hot fomentations, and paracentesis, besides the constant use of the bandage. On the third day of treatment, as the cornea was more deeply involved, I thought the progress of the malady might be promoted by the falling away of the lower lid from the globe, because of the paralysis of the orbicularis muscle. To counteract this, I excised a V-shaped piece of skin from the lower lid, to shorten its tarsal margin, and united the wound by three sutures. There was no flinching by the patient in doing the operation, but he gave me assistance in using the sponge, and suffered no inconvenience. So, too, paracentesis corneæ was in nowise disagreeable to him. For twenty-four hours after the operation on the lid atropia was discontinued, and then the pupil, which had been fully dilated, became small.

After three days I took the stitches out of the wound: the union was complete, and the lower fourth of the cornea covered by the margin of the lower lid, and the bandage now kept the lids perfectly over the cornea. For a day or two there was some regeneration of the corneal epithelium, but the suppurative process went on until it reached an intensity which rendered destruction of the eye certain. For one day the eye was kept hermetically sealed by plasters and a bandage; but the disease then made more rapid progress than under the usual régime of hot water for half an hour every two hours, and atropiæ sulphat. sol. gr. ij. ad ℥ i. every two hours. For ten days the patient continued under my care, and then went under the observation of Dr. Agnew, and was also seen by Prof. Hammond. In June—that is, six weeks afterwards—I again saw him, and made the following notes: The cornea is cicatrized and flat, having been entirely destroyed, and sight lost, as I had predicted to the patient. He says he has for several weeks had continual giddiness, and sometimes feels as if drunk—has unnatural sensations in the left arm and hand. I find the right masseter muscle much atrophied; but above it, near the jugum, is a hard, firm swelling about the size of a small hickory-nut. Occasionally has sharp pain in the back of the neck.

My diagnosis of this case is, that a tumor was growing in the middle fossa of the right side of the skull, involving the root of the fifth nerve and the ganglion of Gasser with the facial and auditory nerves.

Since writing the above I have learned that the patient died more than a year after the above date. His friends say that a cancerous growth formed on the side of the mouth alongside of the place which had once been destroyed by caustic, and spread over the cheek and down the neck. That he had great difficulty in swallowing; that he had no additional paralysis, no convulsions, no disturbance of mind, but suffered greatly from headache, and died from exhaustion. Unfortunately there was no autopsy.

Case II.—The following case is one of paralysis of the upper two branches of the fifth nerve, and only partial affection of the third or submaxillary division. It has a special interest because of the striking benefit which has been derived from the galvanic current.

Amelia McC., æt. 17, came to the New York Eye and Ear Infirmary, October 14, 1870. The right eye had for five days been inflamed, and while there was moderately intense injection of the conjunctival and scleral vessels and ulceration of the whole cornea, there was no expression of pain nor intolerance of light. I at once, from this passive behavior, suspected the fifth nerve to be at fault, and found such to be the fact. I could put my finger on the cornea and the conjunctiva without causing the patient to shrink.

On inquiry, I learned that in August preceding, a numbness had befallen this side of the face and head after she had suffered from a severe headache—an attack much worse than any she had had before. There had been no other special symptoms, and the matter was considered unimportant. The inflammation of the eye came on spontaneously. I carefully examined the region of insensibility, and found it was terminated accurately by the median line of the face, that it included the upper lip, side of the nose, eyeball, and lids, forehead and scalp nearly to the vertex, temple, and anterior two-thirds of the cheek. The chin, the cheek

in front of the ear, the auricle and neck, had sensibility, though in slightly diminished degree. The left side of the face was perfectly natural. There was loss of sensibility on the right side of the tongue, the upper lip, gum, and inside of the cheek, and the anterior pillar of the fauces. Sense of taste she did not perceive to be impaired. The right nostril could be tickled with impunity, and a Eustachian catheter did not excite resistance until it arrived at the soft palate. Contraction of the palatine muscles normal, and the masseter on the right side seemed as vigorous as on the left.

The nature of the corneal inflammation being clearly indicated, I determined to try the benefit of the galvanic battery, and sent the girl to Dr. Guleke, of Thirty-fourth street, who kindly consented to conduct this part of the treatment. I directed, in addition, the use of sulph. atropiæ, of hot fomentations, and occlusion of the eye by a bandage.

The surface of the cornea was entirely stripped of epithelium to its margin, although its deeper tissue was almost transparent—iris and pupil could be distinctly seen. After three applications of the constant current I was surprised at the improvement in the cornea. Although the inflammatory redness continued about the same, the epithelium had been regenerated all around its rim, making a circle of at least one-tenth of an inch wide, and having a central bared portion about two lines across. During the following week the growth of epithelium continued, but less rapidly, and the injection of the eyeball diminished. The sensibility of the cheek improved, the posterior limit of the numb region coming a little forward. After this time the keratitis grew worse, the central ulcer widened, and the tissue of the cornea became infiltrated with pus, and hypopion appeared. Two small abscesses formed in the cornea and burst, leaving deep ulcers—the superficial erosion extended. The worst condition was reached in about the fifth week of the disease, and thereafter there was slow, though interrupted, improvement. Perforation of the cornea never took place, though it seemed imminent. There was for some time pus in the anterior chamber, but paracentesis was not resorted to. By the first of January the repair had gone so far that the lower half of the cornea was covered with whitish, opaque, thick epithelium, upon which ran a number of vessels from the limbus—the upper half of the cornea quite clear. This dense opacity has subsequently grown thinner and more transparent, so that now (April 8th) one can easily see the pupil, and sight begins to return. The safety of the cornea can now be considered sure.

During the progress of the acute inflammation attention was directed to the state of tension of the globe. During the period of acute inflammation, the eye was perceptibly softer than normal, but not to a striking degree. After recovery the globe returned to the same state of tension as the fellow eye, so far as the finger, carefully applied, could decide.

While the eye was improving, the sensibility of the face equally increased. The dividing line between the numb and sensitive region ran from the middle of the zygoma to the angle of the mouth; this advanced farther upon the malar bone, so as to come within half an inch of the outer palpebral commissure; but the side of the nose and upper lip remain insensible. The forehead also recovered down to the eyebrow, but the lids and conjunctiva are anæsthetic. But it must be noted that the patient is always aware when firm pressure is made, although so indifferent to pain that she once blistered the cheek by applying scalding water, and did not know it. In examining the right ear I found the membrana tympani opaque, its epidermoid layer thickened, and the appearances such as belong to subacute otitis media; watch heard only when it touched the auricle. The membrana tympani could be touched more roughly than the normal drum membrane, although it had sensibility. The meatus auditorius showed a diminished though moderate degree of sensation in all parts, except on a spot about the middle of the anterior wall nearly half an inch in length, which was entirely devoid of sensation. I was struck by this circumstance, and tested the fact several times to be sure of it. I am at a loss to give any anatomical explanation for it. The impaired hearing is evidently due to catarrhal inflammation of the middle ear.

The treatment by galvanization has been steadily kept up by Dr. Guleke. For the first three or four months the electricity was daily used; later the patient came about every other day. The length of each application was from three to four minutes.

The success which has attended the treatment in this case is worthy of note, because the tissue changes in the cornea are so easily observed.

Among some of the other effects of paralysis of the fifth nerve are, that the retinal and iritic vessels are enlarged, as seen by Marfel and by Schiff. In the case of Amelia McC., I do not find this symptom. It certainly does not exist in the diseased eye, nor is the circulation of the other eye abnormal. During the active keratitis the lachrymal secretion is almost absent. Yet patients thus affected are able to weep copiously, as is stated by Mr. Square, in Ophthalmic Hospital Reports, Vol. 5, page 353. In my second case this is also true.

I have alluded to the fact that the eyeball in many cases loses tension—while physiological experiments have shown that irritation of the nerve greatly augments tension of the globe. A case of paralysis is related by Hippel in which the eye was hard to the touch, and he was able to detect constriction of the visual field.

Dr. W. B. Neftel.—The physiology of the nervous system is of high importance in the diagnosis and treatment of nervous diseases. The effects of irritation or paralysis of nerves which we obtain in experimenting on animals are analogous to some pathological conditions, which, consequently, must be traced to the same causes. We are therefore able to study the diseases of the nervous system on a physiological basis.

In studying the cerebral nerves, we have to bear in mind that the cranial bones are analogous to the vertebræ, a circumstance which explains several facts. For instance, Deiters has shown that the sensitive portion of the trigeminus originates in the medulla oblongata, from a part which corresponds exactly to the sensitive horn of the spinal cord. Therefore, the sensitive portion of the fifth cerebral nerve, according to Deiters, is a direct continuation of the sensitive spinal nerves. Again, it is admitted by anatomists and physiologists that the sensitive and motor roots of the spinal cord are connected with the ganglia of the sympathetic, by the so-called rami communicantes. In a similar way many important ganglia in the head are to be considered as being ganglia of the sympathetic, inasmuch as they are connected by rami communicantes with sensitive and motor nerves. Thus the ganglion ciliare must be considered as a ganglion of the sympathetic, connecting sensitive nerves of the first branch of the trigeminus with motor nerves of the third pair. In the same way is Meckel's ganglion a sympathetic ganglion connecting the sensitive nerves of the second branch of the trigeminus with the motor nerves of the seventh pair. The ganglion oticum likewise is a sympathetic ganglion, connected with sensitive and motor nerves of the

third branch of the trigeminus through rami communicantes. The sublingual ganglion belongs also to the sympathetic, and is connected with the lingual branch of the trigeminus and the chorda tympani of the facial nerve. The neuro-paralytic ophthalmia accompanying affections of the trigeminus has been ascribed to the circumstance that the insensible conjunctiva does not call forth the reflex activity of the lids which protect the eyes from external injuries. This theory, however, has been given up, since Samuel has experimentally shown that paralysis of the facial nerve does not call forth neuro-paralytic ophthalmia, though the eye is equally or still more exposed to injuries. When Meissner discovered trophic nerves in the first branch of the trigeminus, the neuro-paralytic ophthalmia found an easy explanation.

I had recently under observation a very remarkable case with neuro-paralytic ophthalmia, which could not be attributed to an affection of the trigeminus, and which clearly shows that the paralysis of the facial nerve plays an important part in causing the affection of the eye. The patient, over seventy years old, had a large tumor in the region of the right parotis, which caused paralysis of the right side of the face. This was accompanied by ophthalmia, though the fifth cerebral nerve was not affected. Possibly in this case pressure was produced upon the auriculo-temporal nerve of the third branch of the trigeminus, which passes through the parotis; but this could not explain the ophthalmia, which, according to Meissner and others, is caused only by affection of trophic nerves contained in the first branch of the trigeminus.

It has been observed that glaucoma sometimes accompanies affections of the trigeminus, and experiments on animals have shown that irritation of the medulla oblongata at the origin of the trigeminus increases the intra-ocular tension.

In reply to Dr. Neftel, whether glaucoma had been noticed in connection with disease of the trigeminus nerve, Dr. Noyes stated that it was a cause, but not an invariable one.

The President asked if the last patient had any intercranial trouble.

Dr. Noyes said she only had headache, but that idea could not be excluded.

In answer to Dr. Stephen Rogers, if he could state when the paralysis was first noticed, Dr. Noyes replied that the date of the numbness could not be stated. The patient first noticed it in connection with inflammation of the eye.

John C. Peters.—Although somewhat late, I may perhaps be permitted not only to compliment Dr. Noyes upon the clearness with which he has presented his subject and the able manner in which he has detailed his interesting cases, but also to make a few remarks, which are more suggestive, perhaps, than precise.

Dr. Noyes seems somewhat inclined to admit that all his cases were connected with tumors of the brain; but some may have arisen from localized apoplexies in the neighborhood of the origin of the fifth pair of nerves. I have a case at present under my observation, in the person of a gentleman aged 46, who had had headaches for six months, attended with constipation, tendency to flushing of the face, and fulness about the head, who, after taking a long, cold drive, suddenly found himself attacked with paralysis of all the branches of the fifth pair of nerves on the left side; he was unable to close the left eye, the left buccinator was paralyzed, he could not whistle or completely close his mouth, there was great thickness and clumsiness of the tongue, the mouth was drawn to the right, the sensibility of the face was impaired. His intellect was clear, but there was some little confusion of the mental faculties, slight numbness and weakness of the left arm and leg, all of which quickly passed away. The diagnosis lay between paralysis of the fifth pair and some of the spinal nerves, from exposure to cold, and a small apoplectic effusion near the origin of the fifth pair, and was finally decided in favor of the latter supposition.

The treatment consisted in the use of purgatives and small quantities of ergot, to prevent further effusion of blood and gently stimulate the nerves, followed by iodide of potash, to promote absorption of the more fluid portions of the clot, or any serous effusion, cerebral or spinal, which may have occurred. The recovery was rapid and satisfactory, although still not quite complete; for every hot day or return of constipation, reproduces slight signs of the original complaint.

Dr. Noyes has naturally turned most of his attention to the effects of paralysis of the fifth pair upon the eyes; but we should recollect that the ophthalmic branch also sends twigs to the mucous membrane of the nose and adjacent sinuses, as also does the second branch, or superior maxillary; paralysis of these twigs causes congestion of the nasal mucous membrane, with more or less hemorrhage, and a copious and almost catarrhal-like secretion of the nostrils, attended with severe headache, while irritation of the sympathetic nerve-fibres which unite with the fifth pair causes contraction of the blood-vessels of the mucous membrane of the nose, with great dryness of the nostrils, or a scanty and viscid secretion, also attended with a peculiarly severe and obstinate form of headache. Nux vomica and ergot will often relieve the paralytic variety, and iodide of potash will sometimes relieve the irritative form.

While giving full credit to the excellent effects of electricity, I have seen a reasonably large number of cases of paralysis of the fifth pair, and even of other cerebral and spinal nerves, probably arising from serous or hæmorrhagic effusion, which have been successfully combated with iodide of potash to produce absorption, and ergot and strychnine to cause subsequent stimulation of the nerves, and to prevent further effusion of blood, serum, or other fluids.

The Corresponding Secretary read a letter from Dr. Alfred Stillé, of Philadelphia, thanking the Academy for electing him an Honorary Fellow.

A letter was also read from Dr. John W. Sterling, a life-long friend, and prosector (in the College of Physicians and Surgeons, in Barclay street) of the late Dr. Alexander H. Stevens, in which additional particulars were given concerning his surgical operations. Dr. Stevens was the first to perform the operation of staphyloma in this country.

Dr. Rogers read a courteous communication from Judge Gunning S. Bedford, in reply to the resolutions passed at the last meeting of the Academy, in relation to the prompt and just sentences of recently convicted abortionists. He also introduced some amendments to the By-Laws.

The President announced that Prof. John C. Dalton would deliver a paper on "Sugar Formation in the Liver," on June 15.

The Academy then adjourned.

Alexander Dunlop Anderson, M.D., of Glasgow.—Dr. A. D. Anderson, one of the oldest and most honored of Glasgow physicians, has died recently at the age of 77. He was a nephew of the late Dr. Anderson, founder of the Andersonian University. One of his sons, Dr. McCall Anderson, is now Professor of Practice of Medicine in the Andersonian University.

MEDICAL LIBRARY AND JOURNAL ASSOCIATION OF NEW YORK.

Stated Reunion, June 23, 1871.

DR. S. T. HUBBARD, PRESIDENT, in the Chair.

SANITARY CARE OF CONTAGIOUS DISEASES.

DR. MOREAU MORRIS read an interesting paper upon this subject. After speaking of the great importance of sanitary science; of its wide scope and manifold affiliations; of the contributions it has levied, not only upon physiology and pathology, but as well upon chemistry, geology, meteorology, and many other sciences and arts; and of the store of practical knowledge it has accumulated from these various sources, and arranged in serviceable shape under trustworthy statistical tables—the author came to treat more particularly of its application to the prevention and eradication of contagious and infectious diseases, and of the special means adopted for this purpose by the Board of Health of this city (of whose Bureau of Sanitary Inspection he is chief).

Though we are still ignorant of the origin and of the essential nature of most contagions, yet we know enough of their laws of progression to give us a base of operations, and determine our course for their arrest and destruction. We may accept, provisionally, the theory that those contagions which are as yet undemonstrated by the microscope, consist of minute living bodies, capable of resisting, for longer or shorter periods, many of the influences that would cause the decomposition of dead organic matter; of being diffused and transported in various ways; and of germination or development, and rapid reproduction, whenever they find the proper soil and the proper conditions, whether within the body of an infected individual or elsewhere. This theory seems, at least, to meet the practical necessities of the case, and points out two ways in which we may check the progress of a contagion: we may prevent the development of its germs, or we may destroy them.

Our agencies for disinfection, then, resolve themselves into two classes: The first includes cleanliness, ventilation, sunlight, etc., which may be supposed to remove the soil or the conditions necessary to germinal development, together with the antizymotics, such as carbolic acid. Here belongs, also, the isolation of infected cases and fomites. The second class embraces extreme heat and cold, and chemically destructive substances, like chlorine or the permanganates.

The importance of isolation, of cleanliness, air, and light, is so well understood that we shall not follow the author in his remarks upon it; though it is unfortunately so often disregarded that there was strong need of its being insisted on. But the thorough efficiency of the methods of disinfection now pursued, and the practical details of their application, are less generally known. With regard to their efficiency, Dr. Morris considers it a settled fact that the spread of contagious diseases may be completely controlled—controlled, it is true, at the cost of the most rigorous care in every instance; but this is a burden that should be willingly assumed by the private physician or the public officer, and as willingly submitted to by the patient and his friends, when the immense interests at stake for the community are considered.

The principal disinfectants in use by the Health Board are the following: 1. Of those which arrest fermentation, carbolic acid and its various preparations, sulphate of zinc, sulphate of iron, sesquichloride of iron. 2. Of those which effect chemical decomposition, chlorinated lime, chlorinated soda, sesquichloride of iron, chlorine, lime, sulphurous acid.

(1.) The antifermentatives are used either separately or in combination one with another. Carbolic acid is employed of good quality for purifying the air of sick-rooms, and for disinfecting clothing, etc.; for disinfecting cellars, privies, etc., a cheaper quality serves (containing about seventy per cent. of the pure phenol).

Among the combinations that have been well tested are these:

Take of Sulphate of zinc.....8 oz.
Carbolic acid.....1 oz.
Water.....3 galls.
Mix.

"Has been found effectual in arresting or destroying the infection upon bedding and clothing in scarlet fever and small-pox, and probably will be found efficient in other contagious fevers."

Take of Solution of sesquichloride of iron (sp. gr. 1.3).....10 parts.
Carbolic acid (impure).....1 part.

Mix, and dilute largely with water at the time of using. This is the "Metropolitan Disinfecting Fluid," and is employed for purifying privies, cesspools, and the like.

For damp cellars and yards a concentrated solution of protosulphate of iron is mixed with a low grade of carbolic acid.

(2.) Chloride of lime requires to be used liberally. It may be sprinkled dry, or used in solution as a wash for floors, walls, etc. To keep it dry in damp places carbonate of soda may be added. This has proved of great use in cleansing the haunts of relapsing fever. Of the virtues of free chlorine in eradicating the germs of this disease we quote a remarkable instance:

The house No. 281 Mott street "had become thoroughly infected with the poison of relapsing fever. During a period of several months, twenty-three cases of this fever had been developed therein. Patients were removed to the fever-hospital as rapidly as they became affected, but new victims succeeded whenever new occupants replaced those taken away; until, becoming satisfied that we had a permanent fever-nest, the Board caused the entire vacation of the premises in the early part of May, 1870. The house was then thoroughly disinfected in the following manner: All the floors and wood-work were washed with a solution of chloride of lime; a sort of plaster of the same was left upon the floors for twenty-four hours. It was then fumigated with chlorine gas, thoroughly, by adding muriatic acid to the chloride of lime. Finally, the walls and ceilings were whitewashed—chloride of lime and carbolic acid being added in small quantities to the lime-wash. After the end of ten days the house was reoccupied by the same class of tenants, yet not a single case of this fever has appeared upon these premises since."

Sulphurous acid has been found one of the most valuable agents for the fumigation of rooms or clothing, and has been especially used to destroy the contagions of small-pox, scarlatina, and yellow-fever. Two pounds of sulphur are sufficient for an ordinary room. Alcohol is poured over it and set fire to, and the room tightly closed for several hours.

Extreme heat and cold (which may be applied by means of superheated steam, or air cooled by powerfully refrigerant processes) are highly valuable in disinfecting vessels charged with the poison of yellow-fever or cholera, and would doubtless prove equally certain in destroying the vitality of nearly all kinds of disease-

germs; but their practical application in ordinary cases would be too inconvenient and expensive, while the means above cited are found sufficient.

This thorough destruction of the contagion can of course only be effected after the patient's removal, and during his isolation other and less complete means must be continuously employed. These are thus described:

"For the sanitary care of patients sick with small-pox, scarlatina, measles, diphtheria, yellow-fever, the general directions would be as follows: The sick-room should always be chosen on the upper floor if possible. It should be kept well ventilated, with such precautions as not to expose the patient to direct draughts of air, occasionally covering him entirely, and throwing wide open all doors (?) and windows for a few minutes, thus replacing the impure atmosphere with a pure one. Frequent slight fumigation of the room, by throwing a few drops of carbolic acid upon a hot surface. Suspending in the room small pieces of cloth soaked in a dilute solution of carbolic acid, one part to two hundred parts of water; also in the hallways adjoining. These to be occasionally renewed. The strength of the solution can be regulated according to the effects upon the patient; if irritating to the bronchial or nasal passages, it should be still more diluted. All vessels for receiving discharges of any kind should contain some disinfecting fluid, such as before mentioned as suitable for clothing; and immediately after use be emptied and cleansed by boiling water. Water-closets and privies should also be kept clean, and frequently disinfected, for which the Metropolitan Disinfecting Fluid or carbolic acid may be used. . . . All articles of clothing or bedding, handkerchiefs or rags, used by or around the patient, should be placed in the disinfecting solution before mentioned (of sulphate of zinc, carbolic acid, and water), for an hour before they are removed from the room; then be thoroughly boiled, and hung in the open air to dry.

"When convalescence has taken place, the patient should be thoroughly washed with warm soap-and-water, and if some mild alkali is added, the better; fresh clean clothes throughout are put on; and he then leaves the room or floor entirely. The room should then be immediately closed, and undergo a thorough fumigation" as above described. All its contents should be thus fully disinfected, and the bed should afterwards be burned. "During attendance upon the patient, the nurse, and all persons who may necessarily be in the sick-room, should have a change of clothing, and not be allowed to pass to other rooms before they change; and such clothing as has been worn in the room should be fumigated and disinfected, the same as that used by the patient."

With reference to the sanitary care of small-pox especially, vaccination (with revaccination) as a preventive measure stands of course before all others. Dr. Morris thought its preventive power had perhaps suffered discredit from the imperfect manner in which it was often performed, especially before the recent discussions had awakened attention to the necessity of care in the selection of the virus and the mode of its employment. The Health Inspectors, using only fresh and well-selected virus, had found about three-fifths of their secondary vaccinations successful. They had vaccinated or revaccinated upwards of sixty thousand persons since March last; and had yet to learn of any attack of small-pox or varioloid where revaccination had been successfully accomplished before exposure. Next in protective importance came isolation; and in many cases this could only be secured by the removal of the patient to hospital, under legislative authority.

Dr. A. C. Post thought that infection was often carried in the long, thick hair of women. His attention had been particularly drawn to this point by a case which occurred in his own practice in 1854. In a family at Manhattanville, under his charge, there were two children in care of a nurse. This nurse was summoned to the city to see her own child, who proved to be sick with a mild type of scarlatina. She remained and nursed the child until its recovery, when the Doctor was consulted with reference to the safety of her returning to her old place. He saw the child; found desquamation complete; and advised that the mother take a thorough ablution; put on fresh clothes throughout, to be sent by the family from Manhattanville; and ride thither in an open vehicle. This was done; and, by way of extra precaution, she was kept apart from the children the first night; and only the next morning, after another bath, and another fresh suit of clothes, did she resume her special charge of the younger child, the older being less in her company. After the normal period of incubation, something less than a fortnight, this younger child was attacked with scarlatina in a severe form. And within another fortnight the other child broke out with the disease, evidently contracted from this one. It seemed impossible, after all the care taken, that the nurse, who had herself had the affection in childhood, could have carried the contagion upon her skin, and it certainly was not conveyed by fomites. But no special attention had been given to thoroughly purifying her hair, which was very luxuriant; and the conclusion seemed irresistible that it was in this the poisonous material had been retained and conveyed.

Dr. A. L. Carroll stated that several of the foreign journals had lately insisted on the importance of thoroughly cleansing the hair of the convalescent patients themselves, before allowing them to leave their isolation. He had been led, by his own observations, to believe that the material of the garments worn by visitors to the sick had much to do with their liability to carry away infection. From dresses of silk, or other firm, glossy fabric, there was comparatively little danger; but woollen garments, especially those loosely woven, with a long nap, were very apt to catch the poisonous matter and hold it for a long time.

Dr. Stephen Rogers asked whether Dr. Morris had known any instance of a physician's conveying small-pox from house to house in his practice, and was informed that he had not.

Dr. Post and others concurred in the opinion that if the sick-room were properly ventilated, and the physician made short visits and used reasonable precaution, there was little or no chance of his spreading the disease.

Dr. Rogers thought circulating libraries might be a frequent means of scattering infection among the better classes. He had once found a book from one of them upon the bed of a variolous patient; and though in this instance it was doubtless burned as he had ordered, yet such books might often be thoughtlessly or recklessly returned.

Dr. Morris had traced one case of small-pox directly to a package of money. The cashier of a western bank had counted the money on the very day that he was forced to quit business by the appearance of the variolous eruption. Returning to his work after convalescence, he sent on the money to a cashier in this city, who was taken down with the disease about a fortnight after receiving it. In paying off those employés of the Board having anything to do with small-pox patients, it was the speaker's habit to sprinkle all the money with carbolic acid, to prevent its possible contamination while in their hands.

Asked whether he had known any instances of a second attack of small-pox, Dr. Morris replied that a number of such cases had been reported by the Inspectors. A sea-captain, whom he had himself attended, had not only a second, but even a third attack, at intervals, respectively, of two and five years.

Dr. Post had a sister who, before the days of customary vaccination, had been successfully inoculated with small-pox. Two years later she took it again by infection; suffered very severely; and was left deeply pitted and with a shattered constitution.

Dr. Morris said that the recent epidemic had opened anew in his mind the old question of the identity of the virus in variola and varicella. The Inspectors had reported several cases of chicken-pox, sometimes so severe as at first to be thought varioloid, occurring in houses where small-pox had been present shortly before. Some of these cases he had himself examined, and they were unmistakably varicella, the vesicles drying up in four or five days, and none of them being umbilicated.

The Doctor related a curious case of special susceptibility to vaccinia, where it would seem, from the immunity on exposure, that there was none to small-pox. A man who had suffered from the latter when a child —how severely, his face bore evidence—was selected to drive the small-pox ambulance. When he had been thus employed for two months he began to get nervous, and at his own request was vaccinated. Contrary to expectation, the vaccination was perfectly successful. On the eighth day the vesicle was found characteristic, and by way of experiment the operation was immediately repeated. Another eight days showed another well-developed vesicle; after which the man declined further trials.

Dr. F. P. Foster inquired whether the vaccination was repeated upon the same arm. (It was.) He had noticed, in Prof. Boeck's practice of syphilization, so-called, that when a series of inoculations had been made upon the chest, for instance, until they would no longer take there, some other part, as the arm, was selected, and the process repeated; and when the susceptibility of this part failed, the leg might still be tried successfully. This seemed to indicate a local receptivity for some morbid poisons different from the constitutional receptivity. It had occurred to him that it might be true of vaccinia, and he had published the suggestion that when success in secondary vaccination was particularly desired, the operation should not be made upon the arm already marked. Some facts in the recent elaborate report by Perroud, of Lyons, on the public vaccinations of that city, seemed to bear out the idea; and he hoped medical men here might test it by observation and experiment.

Dr. Joel Foster, Dr. Underhill, and others defended the profession against the charge of careless vaccination.

Dr. Janes had seen many cases of small-pox in young children whose vaccination had apparently been very successful. It went to show, not that the vaccination was badly done, but that a single vesicle, or a single vaccination, was often insufficient to afford protection.

Dr. Morris had revaccinated himself every year for twenty-three years, without success until last year, when it took, and this year, when it took again.

Dr. Post, in illustration of the protective power of revaccination, related the case of a family exposed to small-pox, where all were revaccinated except the father, who refused to be. He was shortly prostrated by the disease, barely saving his life, while the rest escaped.

Dr. Carroll said that the experience of the recent epidemic in England accorded with that of the present one here, as given by Dr. Morris. While the majority of the small-pox cases were found among those who had once been vaccinated, there had not, up to a late date, been discovered a single instance of a person recently and successfully revaccinated taking the disease.

The meeting adjourned.

Correspondence.

CONCERNING NEW INSTRUMENTS.

To the Editor of the Medical Record.

In your issue of June 15th, 1871, I notice an article by S. Fleet Speir, M.D., entitled "Aids for the Diagnosis and Treatment of Certain Diseases," which was stated in the foot-note to have been read before the Kings County Medical Society. The paper opens with the statement that "the armamentarium of the profession is already so burdened with variety of form and similarity of use, that the introduction of any new instrument can be excused only on the ground that it enables us to accomplish the object in view more rapidly or more perfectly than heretofore," which statement seems almost incomprehensible, from the fact that the first instrument introduced is an old appliance, a "self-retaining and self-illuminating ear-speculum." It is essentially a bivalve ear-speculum, adjusted by means of a screw.

A number of our most experienced practitioners are unable to remember when this form of speculum was *not* in use. It is mentioned by Weber, of Berlin, in the *Monatschrift für Ohrenheilkunde* for December, 1867, and by Lincke in 1830, and by Kramer many years since. Kramer's instrument was bivalve by means of a handle. This modification certainly makes an instrument having "variety of form and similarity of use," as the doctor has so happily said in his prefatory apology; but whether it entitles it to the high-sounding name of "a self-retaining and self-illuminating speculum" may be doubted, especially as there is a *nose*-speculum in existence which is identical with Dr. Speir's appliance for the ear.

The doctor claims that by the use of this speculum many of the operations upon the ear can be performed without the aid of an assistant, for the operator can use the reflector in one hand, while the other employs an instrument; or if sunlight be used for illumination, both hands are left free to the operator. Some experience in the use of the bivalve ear-speculum has convinced me that the self-retaining quality is much overrated, for in order to dilate the speculum, so as to cause it to remain firmly in place, necessitates so considerable a pressure on the unyielding middle or inner part of the auditory canal as to cause unbearable pain in many instances, without at all dilating that part of the canal, for two good reasons;—one is that it does not reach, and the other that it is a bony and hence unyielding canal. An assistant certainly is not often needed in operations about the ear, unless it be for the steadying of the head, which has no bearing upon the form of speculum used. No mention is made of the forehead mirror, an omission of very great moment, as it is believed no surgeon can operate upon the ear in the best manner without its aid or that of some appliance to remove the mirror from the operator's hands. Other arguments are used in favor of the bivalve speculum, which have

been urged and answered from the days of Kramer and Wilde.

I again quote: "It also has the advantage of being capable of illumination by indirect rays of light. All that is necessary to secure a full illumination is, that the rays of light shall strike upon the interior of the funnel a short distance inwards, when it will follow on until it reaches the tympanum. This allows of the head of the observer being placed in front of the speculum, and the light upon the side—no special form of light being necessary, and in this sense it may be said to be self-illuminating. When sunlight is used, the strong rays are diffused before they reach the interior, thus affording a better light than can be obtained from its direct rays." "The claims to originality in this instrument are based upon the adaptation of the principle of the bivalve speculum to a convenient form of self-retaining ear-speculum." As to the last sentence, it is undoubtedly true that no speculum can be self-retained in the ext. auditory canal in the best position for work or inspection of the parts. If the doctor should be called upon to examine the ear of one of the Pennsylvania miners, while at a remote portion of the mine, it would undoubtedly be admitted that a Davy's safety lamp would assist his speculum in its self-illuminating function.

In regard to the mode in which the light enters the ear, it seems that some other course is pursued than that ordinarily laid down by the laws of optics.

Certain it is that light will not enter the ear, from any source whatever, as readily as water would, it preferring to move in straight lines; and how it contrives to be so refracted or reflected by this "self-illuminating speculum" as to violate all law, and enter when an opaque substance—that is, a surgeon's head—is in front of it, is beyond ordinary comprehension.

It seems to me a highly pernicious practice at this day to encourage examinations of the membrana tympani by direct light. The recent great advance in otology is due as much to the invention of the concave ear-mirror as to any other cause. Not that it is *impossible* to observe the drum membrane by indirect light, but that it is very *difficult* to do it well.

Again, we have an ear-scoop, figured in the same article, for "extracting wax or foreign bodies from the ear. It has the advantage of removing wax, etc., without pressure upon the tympanum." Probably by "tympanum" is meant the membrana tympani, for it is hardly possible that even the illuminating power of this instrument is sufficient to see through an imperforate drum membrane into the tympanum.

It might reasonably have been supposed that the invention of ear-scoops had received a check from what has been said and written upon the subject. In the *American Journal of Medical Sciences* for 1864, vol. 48, page 394, is an article entitled "Hints Respecting the Extraction of Foreign Bodies from the Ear and Nose, with an Engraving, by S. D. Gross, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia," in which an instrument closely resembling Dr. Speir's, being a spoon on one end and a small tooth-like process on the other, for the removal of foreign bodies, cerumen, etc., from the ear and nose is figured.

This article was replied to by Dr. Roosa, of this city, in the next number of the same journal, vol. 49, for 1865, page 103, in an article entitled "Remarks on the Extraction of Foreign Bodies from the Ear," in which Dr. Gross's plan was very justly criticized in several of its details. The operating on the ear with insufficient illumination, and the ignoring of the violence quite likely to result from this procedure, and the necessary chloroforming of the patient, was objected to. In regard to impacted cerumen, Dr. Roosa states in this article that in the removal of cerumen from twenty-eight cases at the infirmary, and a large number at his office, warm water was amply sufficient. Dr. Hinton is also quoted as removing cerumen from forty-five patients by means of the syringe and warm water only.

It is difficult to see what there is in the construction of this instrument which enables cerumen to be removed by it without producing pressure on the drum membrane, as is asserted.

The statement is made that "the operation of removing wax from the ear is rendered less painful by the instrument detaching the wax from a few only of the hairs in the ear at a time." It seems exceedingly strange that an ear-spoon is recommended on account of the small amount of pain caused by its use. Of all the means for the removal of cerumen the mining or digging of it out would seem the most painful.

It must needs require no argument to convince any one that a stream of warm water will remove cerumen or any foreign body in the least violent manner. The experience of the writer in removing impacted cerumen fully concurs with the authorities quoted and with that of all the authorities except Dr. Gross and Dr. Speir.

The doctor has been so much annoyed in the treatment of lachrymal diseases as to have been led to the adding of "a new instrument" which he calls a lachrymal catheter. It consists of a Bowman's probe, hollow, and slit up on one side its whole length, except the very end, which is closed and rounded off so as to allow of free introduction. The intrument is similar to one suggested by X. Galezowski, in his Traité des Maladies des Yeux, for 1870, part first, page 141, fig. 64; but is quite inferior to it.

Galezowski's instrument is perforated in several places for the passage of the fluid, and is, moreover, attached to a syringe—a great convenience. This affords another example of the "variety of form and similarity of use" already alluded to. The usefulness of this instrument may well be called in question, it having been thoroughly tried by a number of surgeons in this city, and found of less utility than has been claimed for it. It seems to the writer that this whole subject of new inventions in medical and surgical appliances needs overhauling. There is a natural tendency to the multiplication of surgical instruments, etc, which should be resisted. A new instrument may be suggested if it is less expensive than an old one; if it is *new* and really useful; if it combines the functions of two or more old ones; if it is moderately simple and inexpensive, for we may sometimes suspect that the instrument-makers show a tendency to prey to a certain extent upon the profession; or if any improvement on an old instrument is made, and it claims to be only a modification, no person will object; but fair play demands that due care should be exercised in the distinction between really *new* instruments and those only exhibiting "variety of form and similarity of use."

Respectfully yours,
O. D. Pomeroy, M.D.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from June 19, 1871, to July 3, 1871, inclusive.

Webster, Warren, Surgeon.—By S. O. 129, Headquarters Department of the East, June 20, 1871, assigned to duty as Post Surgeon at Fort Independence, Mass.

Byrne, C. C., Surgeon.—By S. O. 129, C. S., Depart-

ment of the East, assigned to duty as Post Surgeon at Willett's Point, N. Y. H.

Sternberg, G. M., Assistant Surgeon.—By S. O. 129, C. S., Department of the East, assigned to duty as Post Surgeon at Fort Warren, Mass.

Winne, C. K., Assistant Surgeon.—By S. O. 240, A. G. O., June 19, 1871, leave of absence extended 60 days.

Janeway, J. H., Assistant Surgeon.—By S. O. 129, C. S., Department of the East, when relieved by Surgeon Byrne, to comply with order from the War Department in his case.

Happersett, J. C. G., Assistant Surgeon.—By S. O. 129, C. S., Department of the East, when relieved by Assistant Surgeon Gardner, to comply with order of the War Department in his case.

Gardner, W. H., Assistant Surgeon.—By S. O. 129, C. S., Department of the East, assigned to duty as Post Surgeon at Fort Washington, Md.

Pope, B. F., Assistant Surgeon.—By S. O. 237, War Department, A. G. O., June 17, 1871, par. 30 of S. O. 385, A. G. O., December 31, 1870, honorably discharging him, is revoked.

Hall, Jno. D., Assistant Surgeon.—By S. O. 247, War Department, A. G. O., June 23, 1871, relieved from duty in Department of Arizona and ordered to report to Commanding General Department of Dakota for assignment to duty.

Gunn, G. H., Assistant Surgeon—Died at Fort Quitman, Texas, May 29, 1871.

Michler, W. H. H., Assistant Surgeon.—By G. C M. Orders, No. 10, War Department, A. G. O., June 19, 1871, cashiered.

Medical Items and News.

The Best Place Abroad for Consumptives.—Dr. J. Henry Bennet, of England, is fairly warranted, on his own personal experience, in stating that there is no summer climate in Europe so good for consumptives as the British insular climate, where the inhabitants are constantly screened from the rays of the midsummer sun by an atmosphere full of watery vapor. He attributes in a great measure his own recovery to his having withstood the temptations of summer travel, and to his having returned home year after year.—*British Medical Journal.*

Albrecht von Graefe.—It was Graefe's wont to visit each one of his hospital patients twice a day—morning and evening. His private patients occupied fifty separate rooms, and the poor patients had fifty or sixty beds arranged in wards. The poor and the rich received equal care from Graefe. When engaged with the strabismus operation, he made notes of over eight hundred cases on which he had operated, from which to draw his deductions; and some months before his death he had completed the notes of a thousand cases of cataract operation performed by his own method.

Abscess of the Breast.—Out of 7,860 patients delivered in the Vienna Lying-in Hospital in 1867, 14 only suffered from abscess of the breast.

Dr. Eduard Friedrich Weber, Professor of Anatomy at Leipzig, died May 19th. In conjunction with his brother, Dr. Wilhelm Weber, he wrote a treatise well known to anatomists, called *Mechanik der menschlichen Gehörwerkzeuge.*

Clay in the Lung.—Dr. E. Von Gorup-Besanez (*Annalen der Chemie und Pharmacie*) finds in the lungs of a workman, who had worked during lifetime in a factory, and had been exposed to the inhalation of mineral dust, no less than 19.91 parts of mixed sand, clay, and silica in 1,000 parts.

A Memorial to Professor Oppolzer.—The subscriptions for a memorial of the late Professor Oppolzer already amount to 4,130 florins, or over $2,000.

A Parisian Surgeon Killed.—Dr. Moreau was killed by a shell while attending to the wounded near the Porte Maillot, during the last siege of Paris.

Medical Association of Delaware.—The following gentlemen were elected as officers to serve for the ensuing year: President, Dr. J. E. Clawson, Smyrna; Vice-President, Dr. Samuel D. Marshall, Dover; Secretary, Dr. D. Hall, Lewes; Treasurer, Dr. Henry F. Askew, Wilmington. The next meeting will be held in Lewes.

The Height of Lunatics.—Dr. Beddoe has ascertained that the adult male inmates of lunatic asylums in England are one inch shorter than their rational brethren.

The Kansas City Medical Journal.—The Medical Journal Association of Kansas City, Mo., have started a bi-monthly medical journal, under the above title. The April number contains creditable leading articles on Lithotomy, Syphilis, Typhlitis, and Measles, by Drs. Jos. M. Wood, J. T. Wilson, Geo. Halley, and J. C. Bernard, all of Missouri. The journal is under the supervision of A. P. Lankford, M.D.

National Medical Journal, Washington, D.C.—Dr. Chris. C. Cox, in retiring from the editorial chair of this journal, announces that it will pass into the hands of Drs. S. C. Busey and Wm. Lee of Washington. In future it will be issued monthly instead of quarterly, as heretofore.

New York Eye and Ear Infirmary.—The Semi-Centennial Report of the New York Eye and Ear Infirmary, for 1870, gives interesting facts concerning the management of this venerable institution, founded in August, 1820, at 45 Chatham street, by Drs. Edward Delafield and J. Kearney Rodgers. Of those who composed its first board of directors, not one survives; of its four surgical officers, Dr. Edward Delafield is the only living representative. There have been treated during the year 9,290 patients; the average attendance was about 120 daily, making the number of visits paid during the year over 36,000. The number of indoor patients was 415, of whom 203 were at the charge of the infirmary. There were 655 operations performed, to restore sight and relieve deformities and pain. During its whole career, 147,000 patients have enjoyed its benefits. Formerly, the institution was open three days in the week for one or two hours. Now it is open daily, and from three to five hours.

The Massachusetts Charitable Eye and Ear Infirmary of Boston, and the Wills Hospital of Philadelphia, were started soon after the beginning of the Infirmary, and upon much the same plan. The following surgeons compose the Surgical Staff: *Consulting Surgeons,* Drs. Geo. Wilkes and Abram Dubois. *Ophthalmic Department—Surgeons,* Drs. Henry D. Noyes, Hermann Althof, Charles M. Allin, and Wm. H. Carmalt; *Assistant Surgeons,* Drs. Francis Delafield, Robert Watts, and Erskine Mason; *Clinical Assistants,* Drs. J. H. Emerson, Thomas R. Pooley, Charles T. Poore, Henry C. Eno, C. M. Bell, R. J. McKay, S. M. Roberts, and Edward Curtis. *Aural Department—Surgeons,* Robert F. Weir, Chas. E. Hackley, Francis Simrock; *Assistant*

Surgeon, Dr. Albert H. Buck; *Clinical Assistants*, Drs. Howard Pinkney, Wm. S. Ludlum, J. N. Beekman, S. F. Morris. *Curator*, Dr. Francis Delafield. *Resident Surgeon*, Alex. G. Sinclair.

The First Female Candidate for the Gold Medal of the Medical Society of London.—The records of the meetings of this Society since 1773 show, that in 1775 a dissertation on "Fevers" was received by the Council from a lady by the name of Dorothea Anna Maria Lucia Hogan Horick van Lobrecht. William Cholmeley, M.D., F.R.C.P., states that the dissertation was returned to her, with a request, "to be wrote in Latin." It was afterwards written in Latin, but the Council decided "that the Society cannot properly take cognizance of it, it being calculated to introduce some empirical nostrum of the authoress, which is to cure fevers in general." Dr. Cholmeley inquires whether the said Dorothea Anna Maria, etc., was a forerunner, a type, of the medical ladies of the present day? If so, then, "appearing ere the times were ripe," she seems to have disappeared into the darkness and oblivion that envelop many another apostle of progress.—*Med. Times and Gazette.*

Accident Statistics in England.—A medical writer in the *Engineer* states that ninety-nine times as many people die of cancer in England as are killed on railways there. Excluding the element of carelessness, 2,165 persons will die of cancer to one killed on a railway. In England, during five years, 333 accidents occurred—200 from collision, 77 from getting off the line, 36 from damage to machinery, and 20 from other causes. For fourteen years, from 1855 to 1869, one person was killed to 7,161,301 transported.

Early English Advocates of Electricity.—Dr. Wm. Cholmeley, of London, in his annual oration before the Medical Society of London, states that he finds very early in the records of the Society many instances of the value of electricity in the cure of disease. In 1777 Mr. Robt. Sherson reported "a case of severe rheumatism of the arm, cured by electricity after other remedies had failed." He said, also, that "he had found electricity singularly beneficial in spasms, and various obstructions, particularly of the menses." In November, 1779, Mr. Ford read a paper "On the Loss of Voice cured by Electricity." In 1783 and 1787 Mr. Hooper reported "Cases of Periodical Headache cured by Electricity." In 1789 Dr. Thos. Fowler, of Stafford, reported "A Case of Obstinate Quartan Ague, of five months' continuance, cured by Electricity." Towards the end of 1792 another case of the cure of aphonia by electricity was reported, and a letter was read from Dr. Jameson on animal electricity, "showing the existence of such a power in the nerves of animal bodies." The next notice of the therapeutical value of electricity is in November, 1816, when Dr. Clutterbuck related a case of profuse hæmatemesis with amenorrhœa, in which nothing did good till repeated slight shocks of electricity, passed through the pelvis, brought on the catamenia. After that date medical electrization was not brought before the Society, until we come to our own days, when the subject is being ably treated by Dr. Althaus and other existing Fellows.—*Med. Times and Gazette.*

Death from Sulphuric Ether.—At a recent meeting of the Gynæcological Society of Boston, Dr. Storer read extracts from a letter of Dr. Davis, of Fall River, detailing a recent death from sulphuric ether, the anæsthetic being employed during an amputation of the thigh.

Insane Hospitals in America.—There are sixty-six hospitals for the insane in thirty-three of the United States. Of this number the State of New York has twelve, Pennsylvania seven, and Massachusetts six.

The Association of Medical Editors.—Dr. Horatio R. Storer, of Boston, Mass., late President of this association, stated in his address delivered at the annual meeting of the Association, held at San Francisco, May 1, 1871, that thirty-eight medical journals are represented in the Association, out of the forty-one so-called regular at present existing in this country. But three American journals have not entered the organization, viz.: The Philadelphia Medical and Surgical Reporter, The American Journal of Medical Sciences, and The Boston Medical and Surgical Journal.

The Boylston Prize.—This prize of one hundred and fifty dollars, awarded by the President and Fellows of Harvard University, has been given to Dr. B. Joy Jeffries, of Boston, Mass., for the best dissertation on "Recent Advances in the Pathology and Treatment of Cutaneous Diseases."

C. C. F. Gay.—An article on "Varicose Veins," going the rounds of the journals, copied from the Record, is credited to C. C. F. Gray, M.D., which should be credited to C. C. F. Gay, M.D.—The mistake is not ours.

Dr. Joseph Meyers died at Charity Hospital, July 6, 1871, æt. twenty-two years.

Whereas, It has pleased Almighty God to remove from us, in the full vigor of his manhood, our late associate and co-laborer, Dr. Joseph Meyers, by disease contracted while in the performance of his duties at the hospital;

Resolved, That reverencing his purity of character, and respecting the ambition that guided him in his professional pursuits, we shall ever cherish his memory and sincerely mourn the loss of so frank and manly a friend and professional brother.

Resolved, That while we mourn our own loss, we tender the bereaved family our deepest sympathies.

Resolved, That we attend the funeral, and wear as a mark of respect the usual badge of mourning for thirty days.

Resolved, That we transmit a copy of these Resolutions to the family of the deceased, the Commissioners of Charities and Corrections, and the Medical Board of Charity Hospital, and that they be published in the New York *World*, *Tribune*, Medical Record, and *Medical Gazette.*

Aug. C. Kinney, M.D.,
Fredk. R. S. Drake, M.D.,
Raphael De J. Flores, M.D.,
Committee of the House Staff.

New Publications.

Books Received.

The Principles and Practice of Dentistry, including Anatomy, Physiology, Pathology, Therapeutics, Dental Surgery, and Mechanism. By Chapin A. Harris, M.D., D.S.S. Tenth Edition, Revised and Edited by Philip H. Austen, M.D., Professor Dental Surgery and Mechanism in the Baltimore Dental College. Phila.: Lindsay & Blakiston. 1871.

The Eye in Health and Disease: being a Series of Articles on the Anatomy and Physiology of the Human Eye, and its Surgical and Medical Treatment. By B. Joy Jeffries, A.M., M.D. Boston: Alexander Moore; Lee & Shepard; New York: Lee, Shepard & Dillingham. 1871.

The Medical Register of N. Y. Dr. A. E. M. Purdy, Editor. Vol. IX. 1871. N. Y.: W. Wood & Co.

Original Communications.

RUPTURE OF THE BLADDER

DEPENDENT ON

STRICTURE OF THE URETHRA AS A PRIMARY CAUSE.

A CONSIDERATION OF THE PATHOLOGY, SYMPTOMS, AND TREATMENT OF THIS LESION, WITH CASES.

By THOS. K. CRUSE, M.D.,

HOUSE SURGEON TO BELLEVUE HOSPITAL.

(Prize Essay for the Wood Alumni Prize of 1871.)

"L'auteur se tue à allonger ce que le lecteur se tue a abréger."—D'Alembert.

Great labor often makes the smallest show. Reasoning and theorizing fill whole pages, whilst ponderous statistics and masses of fact are thrust into parentheses. This is as it should be. Clinical records never made popular text-books; and if an author wants to be read, let him give his deductions, not his cases. But such a method has its limits; it must be used only in matters that have been made exact science by long observation. The subject of this paper, by reason of its rarity and fatality, is a field so little attractive, that its consideration is ignored in professedly exhaustive treatises on diseases of the genito-urinary system. Hence the excuse for treating it clinically.

From time to time have been published cases of ruptured bladder occurring in different conditions and from various causes. Wilkinson King reported a case in which the accident followed retention of urine from impervious urethra in the fœtus.* Similar instances are reported by Howship, Malgaigne, and Dr. Robert Lee.†

Mr. Lynn‡ published a case in which the cause of the rupture was a retroverted pregnant uterus, giving rise to retention of seven days' standing; Mr. Ramsbotham cites two cases of rupture occurring during delivery;§ and a most interesting case happened at Bellevue Hospital, in which the forceps had been applied for a contracted antero-posterior diameter.‖

Boyer tells of a man ninety years old, who, after complaining of pains "au col de la vessie," commenced urinating by the umbilicus, and continued so to do for six months, when he died of old age.¶ At the Edinburgh Royal Infirmary Mr. Liston had charge of a fatal case, in which the rupture was caused by the sharp fragment of a fractured os pubis**—a case that was the inspiration of the advice of Liston's enthusiastic admirer, Mr. Erichsen: In treating fractures of the pelvis, "the first thing to be done is to *pass a catheter into the bladder.*"

The largest collection of instances of the lesion is to be found in a labored and highly valuable paper published by Dr. Stephen Smith in the *New York Journal of Medicine* for May, 1851. In this essay, which received the honor of a German reprint, there are collected no less than seventy-eight cases, illustrating every known cause and every variety of symptoms of the accident.

As a possible consequence of stricture, rupture of the bladder is so very rare, that Sir Henry Thompson has never seen a case nor specimen, and takes his description of the symptoms from Sir Everard Home.*

It may be remarked parenthetically:—Although he does not state it, Sir Henry is cognizant of a case of rupture from violence, for at a meeting of the Pathological Society of London, held March 6, 1855, he took part in the discussion evoked by an illustrative specimen presented by Mr. Partridge. Further testimony to its extreme infrequency is found in the fact, that in a faithful study of the case-books of the New York Hospitals, not a single instance was discovered, whilst in the same there are records of nearly twenty cases of rupture from violence. Of the seventy-eight cases of rupture given by Dr. Smith, but three acknowledge the etiology of stricture.

Spite of a diligent search of the journals and of other sources, the total number of collected cases is but six.

The history of each is appended.

Case First.—A man aged twenty-two had been laboring under symptoms of urethral stricture consequent to gonorrhœa. A fortnight after the inception of these troubles he was knocked down by a horse, the animal falling on the lower portion of the patient's abdomen. Pain in hypogastrium followed the injury, together with frequent desire to urinate, the act being accomplished with difficulty. Eight hours after the accident the difficulty increased, and soon retention became complete. This was at 12 o'clock on a Saturday night. Retention continued till Monday evening, when by patient's own efforts some urine was passed, pain being relieved thereby. Tuesday morning, while straining, the man felt a "crack," accompanied by a sensation of cold in the pubic region. There were no signs of extravasation. The evening of the same day a catheter was passed, and two quarts of bloody urine drawn. Catheter passed at intervals during the next two days.

Spite of many bleedings, and doses of calomel and antimony, the patient speedily recovered.†

Remarks.—This case is justly regarded as an instance of a rupture not involving all the coats of the bladder. This diagnosis,—being founded on the presence of most of the symptoms of ruptured bladder, and the absence of signs of extravasation,—though not certain, is most probable. Inasmuch as the accident received was not the direct cause of the lesion of the bladder, the case properly falls under the class we are considering.

Case Second.—A man forty-four years old had been suffering from symptoms of stricture, the result of gonorrhœa, for twenty-three years. In the twentieth year of the disease there was complete retention of urine for two days. Patient put himself under the charge of Sir Everard Home for the cure of his stricture. After a few days' course of the application of armed bougies an attack of retention ensued, which, after lasting twenty-four hours, was followed by a "rush from upper part of the bladder," and patient thought the organ was ruptured. Great pain, and no inclination to urinate, were the next symptoms, and then a large tumor appeared in the region of the bladder. Treated by fomentations and laudanum. The second day pulse small and frequent; tongue dry; has slept a great deal; passed no water, and has no inclination to do so; abdomen much distended. A rectal puncture was made, f. ʒ iij. urine flowing from the canula, but no relief was given, and the tumor of the belly continued. Patient died on the fourth day, no urine having passed per urethram or otherwise since the puncture by the rectum.

Autopsy.—Large quantity of urine in the abdomen; intestines covered by lymph. Bladder ruptured at

* Guy's Hosp. Reports, vol. ii., p. 508.
† Med.-Chir. Trans., vol. xix., p. 238.
‡ Medical Obs. and Inquiries, vol. iv.
§ Pract. Obs. in Midwifery.
‖ Case of Celia Ford. *vide* Dead House Records, 1867.
¶ Traité des Maladies Chirurg. Quatrième éd., tom. ix., p. 41.
** London *Medical Gazette*, vol. vii., p. 29.

* The Pathology and Treatment of Stricture of the Urethra, by Sir Henry Thompson, F.R.C.S. Philadelphia, 1869, p. 290.
† Mr. W. T. Keal, London *Med. Gazette*, 1837, p. 621.

anterior part of fundus; and the urine passing between the "cellular membrane" and peritoneum as high as the umbilicus, had ruptured the serous membrane at that point.

The opening in the mucous coat of the bladder was circular and the size of a goose-quill, the muscular coat was torn to the extent of an inch, whilst the cellular covering was sloughy. Bladder much thickened. A stricture, admitting a fine probe, was found at the membranous portion of the urethra.*

Case Third.—An officer of the navy applied for the relief of a stricture that had been troubling him for ten or twelve years. The caustic being used, brought on "strangury," which lasted from the evening until the next morning. The record does not state the amount of urine passed at this latter time, nor whether any was voided from the same time until the next day, when the accident took place.

The third day after the application of the caustic, the patient was conscious of something having given way internally, and the bladder could not be felt by the finger in the rectum. Great pain was felt in the left side. Fifty drops laudanum were given every four hours. Pulse 130. Passed some water by penis.

The fourth day the pain continued, and there was constant vomiting and purging. Fluctuation apparent in left side. The fifth day less vomiting and hiccough; has delusions. Laudanum continued; catheter not used, because the urine comes freely. The sixth day has maniacal delirium, wounding a woman in the street, and calling the watch, believing himself assaulted by everybody. After six hours, became more manageable. Has great internal distress. Urine comes freely. The seventh day there is much less distress, urine coming even more freely than the day before. In the evening the flow ceased, and bladder became much distended. The eighth day the bladder, still continuing distended, was punctured through the rectum, and one quart urine drawn. Patient composed after the operation. In the evening there was vomiting and great restlessness. The morning of the ninth day patient died in great agony.

Autopsy.- A quantity of fluid resembling urine found in the abdomen. There was a tumor on the left side of bladder, below peritoneum. In the roof of the tumor, through the peritoneum, there is an orifice one inch long. The surface of the intestines had lost their natural polish. The bladder contained a pint of water, and midway between the fundus and prostate there was a rent two inches long leading into the above-mentioned tumor. When the latter was opened it was found to contain urine and coagulable lymph.

Remarks.†—In this case the distension of the bladder during life is explained by the conservative cellulitis around the rupture discovered after death,—a method of repair that seems the most probable in cases of ruptured bladder.

Case Fourth.—John Sheehan, widower, Ireland, laborer, æt. 60. Admitted to Bellevue Hospital, June 13, 1870.

Patient is a large, muscular man. Denies ever having had gonorrhœa or syphilis, or ever having received an injury about the genitals. States that twelve years ago he had retention of urine for thirty-six hours, that no instrument could be passed into his bladder at that time, and that he relieved himself by his own efforts. *On admission*, the patient is able to walk upstairs to his ward. Says he has *passed no water for the last three days*, and on waking in the morning after the first twelve hours of retention, he found the scrotum greatly swollen and reddened. Examination reveals a well-marked indurated cicatrix on the outer aspect of the glans penis. Scrotum and penis are extensively infiltrated, and the integument covering them is of a dark-red color. The bladder has risen as high as the umbilicus. Patient's countenance is not anxious, he complains of no pain, and his pulse is 94 and full.

Soon after admission the urethra was explored with the following results:—Flexible catheter No. 8 is arrested at seven inches from the meatus; No. 2 bulbous bougie stops at six and three-quarters inches; whilst No. 4 meets a constriction at seven inches, and passes three-quarters of an inch beyond. Filiform bougie is stopped at the same point as the last instrument.

Two hours after the examination, while patient was being anæsthetized, the abdominal tumor suddenly disappeared, and the former area of dulness became tympanitic. No symptom of collapse, and the pulse remained as good as before. Patient was greatly excited by the ether. Another attempt is made to pass a guide, but without success. Four hours later the integument of the penis and scrotum were freely incised, a poultice being applied, and a small dose of an opiate administered. Pulse 104 and somewhat feeble. From this time patient made no motion or sound to attract the attention of his watchers, and was found dead in a few hours after the incisions had been made.

At the autopsy 2½ quarts bloody fluid were found in the abdomen; a little fibrinous exudation on the visceral peritoneum. The bladder is large, its walls of ordinary thickness, and its cavity contains a little fluid.

At the apex there is a laceration one-half inch in length, which involves the peritoneum, and is surrounded by no signs of ulceration. The penis, scrotum, and tissues in and around the perineum are infiltrated with bloody urine. At the junction of the bulbous and membranous portions of the urethra there is a slight contraction of the calibre of the canal, and just behind this point the urethra is torn completely across, the ragged edge of the bulb looking upwards and arresting any instrument passed through the meatus. The tubes of the kidneys were granular and fatty.*

Remarks.—There can be no question but that in the above case immediate operation should have relieved the bladder of its contents. The fatal delay was caused by the difficulty incident to obtaining the attendance of the visiting surgeon. The extraordinary circumstances under which the accident occurred suggest the employment of chloroform rather than ether, and numerous assistants to confine the patient when an anæsthetic becomes necessary in a similar crisis. The *post-mortem* appearance of the rent in the bladder will sustain the position advanced farther on, of the absurdity of referring all cases of rupture to a previous process of ulceration.

Case Fifth.—Alex. Bruce, æt. 38, while at sea suffered from retention of three days' standing, the result of a stricture. At the end of that time he experienced a sudden and severe pain in the region of the bladder and prostate, the pain being followed by great prostration. He was treated with large doses of laudanum by the ship's captain. Four days later the cellular tissue surrounding the rectum came away as a slough. At this time he was received into the Staten Island Retreat, where he was seen by Dr. Ward, who reported the following condition:—The hand could be passed up the sacrum and surround the rectum. Two and one-half

* Practical Observations on the Treatment of Strictures in the Urethra and in the Œsophagus, by Everard Home, Esq., F.R.S. Vol. ii., p. 241. London, 1805.

† Practical Observations on the Treatment of Strictures in the Urethra, by Sir Everard Home, Bart. London, 1821, p. 245.

* Records of the Third Surgical Division, Bellevue Hospital. 1870.

inches above the anus was a large opening in the anterior part of the rectum, through which opening all the urine was passed.

This patient made a rapid and complete recovery. The opening in the rectum did not perfectly close, but whether he passed his water subsequently by this or by the natural way, the record does not state.*

Remarks.—It is needless to say that the chief point of interest in the above recital is the fact of recovery. If a favorable result could occur in spite of such extensive complications, a like issue should be expected in cases presenting symptoms not so grave. That this is not extravagant language will be illustrated by the next case. It must be remembered that those who consider rupture from stricture as necessarily fatal, have been influenced by the history of rupture from external violence, in which latter case the depressing effects of the shock of the injury are to be added to those of the local lesion.

Case Sixth.—Charles Dager, æt. 36, single, butcher. Admitted to Bellevue, October 31, 1870. Patient has been a comparatively healthy and temperate man. Had his first clap ten years ago, and last one two and one-half years before admission. For two years has passed water with difficulty, and the stream has been small, forked, twisted, and intermittent. Has had smarting micturition, and pain in the perineum before, during, and after the act. At times water has contained blood; otherwise clear and without sediment.

Made his water without help at 6 o'clock A. M., October 29th, at 10 of the morning of the same day. While straining he felt something give way, and experienced a severe pain all over the abdomen. No other symptoms. He was able to walk, and at 3 o'clock he called on a doctor, who drew from him six ounces of urine.

Received no further treatment until his admission to Bellevue.

On Admission.—Patient has retained his water forty-two hours. Abdomen tender, painful, and tympanitic; pulse 72; lies with his knees drawn up. Bulbous bougie No. 13 is retained two and one half inches from the meatus; No. 10 at three and one-half; and Nos. 2 and 3 at six inches. A filiform bougie was passed, and over it a tunnelled catheter. Six ounces clear urine flowed without affording much relief. Is ordered a turpentine stupe, and to take ℥ ij sol. morph. (U. S.) every two hours.

Nov. 1.—Patient passed a sleepless night. This morning is found in apparently good general condition; tongue moist, pulse 108. There is considerable ballooning of abdomen, and percussion tympanitic everywhere. Tenderness not great, but is most marked in the inguinal regions. A filiform bougie entered the bladder, and the instrument being withdrawn, a No. 7 gum-elastic catheter was passed, and six ounces limpid urine drawn. The passage of the catheter was difficult, the point entering a false passage on the left side of the roof of the urethra. Catheter was withdrawn just short of a point where the urine ceased to flow. The catheter was left *in situ*, being fixed by adhesive straps passing from it to the penis. P. M.—Water flows freely from the retained catheter. General symptoms the same; pulse 104 and full. Morphine continued.

Nov. 2.—This morning there is great distension of the abdomen, and an appreciable redness with exquisite tenderness in right iliac fossa. Pulse 108 and rather weak. Catheter found as it was left, but patient says that no water has passed through it for seven hours. Dried crusts of some secretion from the urethra found at the meatus. Catheter withdrawn, washed, and an attempt made to reintroduce it; but patience was tried and a variety of manœuvres practised before a No. 6 could be made to enter the bladder. All this was caused by the before-mentioned false passage. Eight ounces urine were drawn, and the catheter retained as before. Morphine continued, and patient is enjoined to take all the milk-punch he can swallow. P. M.—No pain; water comes freely. To relieve tension, three or four incisions extending through the superficial fascia are made in the hypogastric and inguinal regions. Ordered a poultice.

Nov. 3.—General condition good, and there is no pain. Pulse 108; respiration 20. The cellulitis has been relieved by the incisions, and to-day several more are made at a point where there is still some tension. Poultice and morphine continued. Takes his milk and whiskey well. The catheter is withdrawn daily, washed, and replaced. To-day it is found coated with pus, and having a phosphatic deposit about the eye. Urethra syringed daily with olive oil.

Nov. 4.—Bowels moved last night; passage watery and small. Redness in the iliac fossæ has entirely disappeared. Pulse is 104, and constitutional disturbance but little marked. No. 6 catheter replaced by No. 9. Thirteen ounces of urine have flowed during the past twelve hours. There is slight œdema of the lower portion of the scrotum, but no œdema of penis. P. M.—Pulse 102; respiration 25. Pupils much contracted. Another passage from bowels to-day.

Nov. 5, A. M.—Pulse 96; respiration 18. There has been considerable discharge of flatus. P. M.—Pulse 90. Six teen ounces of urine flowed in the past twelve hours. Urine slightly alkaline, but clear.

Nov. 6.—Patient in fine condition, and very hopeful. Notable diminution in the size of abdomen since yesterday. A. M.—Pulse 84; respiration 24. Twenty-four ounces urine in last twelve hours. Incisions suppurating. Urethritis still bad. Several passages of wind and water last night. P. M.—Pulse 108, full and soft. Scrotum still slightly œdematous, for which a suspensory bandage is ordered. A No. 9 catheter is retained, and morphine continued.

Nov. 7, A. M—Pulse 90. No pain nor tenderness. Passes a good deal of wind. P. M.—Pulse 95. Appetite much better to-day. Quantity of morphine reduced.

Nov. 8, A. M.—Pulse 95, full and regular. Urine flows freely, but is intensely alkaline and turbid. P.M. —Pulse 98.

Nov. 9, A. M.—Pulse 84. Incisions in abdomen cicatrizing nicely. P. M.—Pulse 86. Appetite good. Morphine suspended.

Nov. 10. A. M.—Pulse 76. By advice of Dr. Smith, catheter was withdrawn, and ordered to be passed every two hours. P. M.—On introducing the catheter this evening, patient experienced a sudden pain in the bladder, and on withdrawing a few drops of blood followed. On the occurrence of this accident the catheter was retained as before.

Nov. 11, A. M.—Pulse 96. Has had a free movement of the bowels. Water passes freely. Tympanitis again increasing. There is a hard cylindrical mass, two inches in diameter, extending transversely across the abdomen in the region of the incisions. This mass is very slightly painful on pressure, and over it percussion is dull. Is given ℥ iij sol. morph. sulph. (U. S.) every two hours. Says he had a recurrence of the pain from which he suffered yesterday, and that it attacked him in straining to pass some wind. P. M.—Pulse 96. Has a slight diarrhœa.

Nov. 12, A. M.—Last night patient thought no water

* Dr. Ward's Art., N. Y. Lancet, 1842, p. 78.

was passing, and he pushed the catheter farther in, at the same time straining a good deal; water passed between the catheter and meatus. Soon after this water ceased flowing, and a severe rigor occurred, during which the pulse was 130. Chill, followed by fever and sweating. This morning, catheter being withdrawn and washed, is reintroduced, and eight ounces urine drawn. Is ordered one ounce whiskey every hour, and the following medicine:—

℞ Tr. Ferri Chlor., ʒ ij.
Sol. Quin. Sulph. (gr. xv: aq. ℥j) ʒ ij.
M. S. ʒ j t. i. d.

Also:—

℞ Quin. Sulph., grs. lx.
Aquæ, ʒ iv.
M. S. ʒ ss t. i. d. Morphine as before.

P. M.—Pulse 90. No more chills. Flow of water free.

Nov. 13.—Feels easy. Tympanitis has greatly diminished. Catheter withdrawn, and is to be passed every two hours. Urine contains a good deal of gelatinous pus, which remains by itself, leaving the rest of the liquid comparatively clear. This phenomenon is noticed only when the urine is drawn at intervals; when the catheter is retained, the whole is uniformly turbid.

Nov. 14.—Same treatment continued. Patient and attendants confident that he is on the road to recovery.

Nov. 15.—Is anxious to pass water by his own efforts, which yet he is not allowed to do.

Nov. 16.—Tumor in abdomen presents the same characteristics. Is ordered a poultice over the same.

Nov. 17.—Is allowed to pass water by his own efforts. Water flows in a good-sized stream, and there is no pain.

Nov. 18.—Micturition is accompanied by a slight pain in bladder, felt immediately after the act. Is sweating profusely. Tumor of abdomen much softer.

Nov. 19, A. M.—Says he passed water as often as every five minutes during the night. Pain during micturition, felt especially in the bladder, and to a less extent throughout the whole course of the urethra. Catheter reintroduced and retained.

Nov. 20.—Great relief experienced from the presence of the catheter. No more pain nor straining.

Nov. 21.—Left epididymis moderately enlarged, hardened, and tender.

Nov. 22.—Cellulitis of abdomen—which has been poulticed constantly—seems approaching the surface.

Nov. 23.—Last night, water having stopped passing by catheter, the latter was removed by patient, who urinated thereafter without assistance.

Nov. 24.—Passes water himself, but has to strain at the last few drops, the flow of which is accompanied by pain referred to right iliac fossa.

Nov. 25.—Water passed without pain or straining. Epididymitis well declared. Ordered a poultice and suspensory bandage.

Nov. 26.—The locality mentioned on the 24th instant as the seat of pain presents the characteristics of an acute abscess.

Nov. 27.—Abscess pointing just above the situation of the right external abdominal ring.

Nov. 28.—Last night had a pulse of 132, and acute pain on micturition. Catheter tied in, through which the urine comes freely. This morning the pulse is 96, and he has no more pain. Catheter withdrawn.

Nov. 29.—After an exploring needle had been passed into its cavity, the abscess was opened this day by a free incision. A quantity of fetid pus, mixed with a liquid having a urinous odor, escaped. P. M.—All day long urine has dribbled from the incision, and none has been passed by way of the meatus. Catheter tied in.

Nov. 30.—Urine has continued to come from the incision. Strict cleanliness enjoined. Patient looks very badly, and is much disheartened.

Dec. 1.—Edges of the incision look ragged. Urine passed in the same way.

Dec. 2.—Same state.

Dec. 3.—As no urine has passed by the catheter since its introduction, it is removed. A few drops of bloody urine flow from the meatus on withdrawal.

Dec. 4.—Is troubled by constant vesical tenesmus, which he cannot control.

Dec. 5.—Patient is rapidly emaciating.

Dec. 6.—Patient sweats much, and the body evolves a disgusting urinous odor.

Dec. 7.—There is stony hardness surrounding the incision; water passed the same way.

Dec. 8.—Lot. plumb. et opii has been kept over the limits of the cellulitis, with relief to the pain.

Dec. 9.—Patient has hiccough, and gags much. Refuses all nourishment.

Dec. 10.—Very low. Complains of constant and painful straining.

Dec. 11.—Sinking fast. Attempt made to nourish per rectum, by throwing up beef-tea and egg-nogg.

Dec. 12.—Has obstinate hiccough. Has delusions, resisting with all his power the attempt to administer a hypodermic injection, and having the idea that the thermometer is an instrument of torture. Extremities cold, pulse faint, pupils dilated.

Dec. 13.—2 A. M., died.

RECORD OF PULSE, TEMPERATURE, AND RESPIRATION.

	A. M.			P. M.		
	Pulse.	Temp.	Resp.	Pulse.	Temp.	Resp.
Nov. 13	84	101⅕	24	90	103	26
" 14	90	101¼	24	102	104¼	30
" 15	90	101¼	24	102	104¼	24
" 16	96	103⅖	21			
" 17	81	101⅖	24	96	103½	24
" 18	90	100	27	96	102	30
" 19	96	100⅘	24	108	104	30
" 20	84	100⅘	24	96	103	24
" 21	96	101⅗	24			
" 22	84	101⅗	24	96	102⅘	30
" 23	84	101⅗	21	102	104⅕	30
" 24	96	102¼	24	102	101½	24
" 25	96	102⅗	24	102	103½	24
" 26	102	101½	24	108	103¼	30
" 27	108	100¾	24	132	103½	36
" 28	90	100½	24	120	102	30
" 29	101	101	24	100	102	28
" 30	114	100	26	108	100	24
Dec. 1	108	100¼	24	102	101¾	24
" 2	98	99½	24	102	101¼	30
" 3	120	100¼	36	120	101¾	30
" 4	130	100½	21	132	100¼	21
" 5	118	102½	24	132	102	25
" 6	120	102½	24	144	103¼	24
" 7	132	100½	30	133	100	28
" 8	132	100¼	36	150	100½	24
" 9	132	100¼	36	150	100½	24
" 10	132	100	24	158	100½	30
" 11	132	99½	24	136	97½	30
" 12	120					

Autopsy.—Lungs, liver, spleen, and heart normal.

Peritoneum.—Firm bands of adhesion between anterior abdominal wall and the cæcum and sigmoid flexure.

Kidneys.—There is great anæmia of the capillaries, both in cortex and pyramids. Well-defined spots of interstitial nephritis. Intense pyelitis, and inflammation of the whole tract of the ureter. Walls of bladder half an inch in thickness, hypertrophy being especially marked in the muscular coat.

Bladder the size of a small orange, and its mucous membrane is thrown into numerous folds. Cavity of the organ is half-filled with a thick chocolate-looking fluid of an intensely ammoniacal odor. Rupture in anterior wall about the middle of the vertical diameter of the bladder, and a little to the right of the median line. Opening in mucous coat somewhat rounded, and sufficient to admit the end of the index finger; muscular and cellular coats show a vertical laceration one inch

in length. A probe passed through the laceration moves freely in all directions, and on cutting down on the instrument through the abdominal wall, a cavity is seen which, commencing in front of the bladder and to the right side, extends around beneath the peritoneum and between the bladder and rectum, to the left. The walls of the cavity are tense, and in it is contained the same urinous fluid found in the bladder. Probe passed through the external opening in the hypogastrium, enters the bladder through the laceration."*

Remarks.—No apology is needed for the length of the history of the above case, inasmuch as from the great rarity of the accident there is no fully detailed case on record. In this, as in Mr. Ward's patient, the interest lies in the possibility and probability of a recovery from rupture from stricture. Before the opening from which the urine continued to discharge was made, it was the common opinion of the attending surgeons that the patient was on the high road to recovery. The progressive sinking, and the death from exhaustion which followed the incision, are totally inexplicable.

Pathology.—Ulceration of the bladder sometimes occurs as a consequence of chronic catarrhal cystitis. In the old man with stricture or an enlarged third lobe, the bladder becomes like a badly-washed chamber-pot. Stinking masses of grayish gelatinous pus continue to form until the cell production—no longer confined to the surface—attacks the muscular and cellular coats, and the ulcer is formed. As was pointed out by Mr. Liston, the ulcer becomes perforating, the more readily the mucous coat forces itself between the muscular fasciculi to form sacculations.† The symptoms of a vesical ulcer are hectic fever and the passage of an increased quantity of the products of inflammation. This much has been said about ulceration, to disprove the general impression that rupture of the bladder occurs only through a precedent process of ulceration.

Mr. Guthrie says: "When the obstruction to the passage of urine is nearly complete, the violent efforts made to discharge it bring on ulceration, and some parts yield. The bladder has been said to burst, but this is of very rare occurrence indeed." In the same breath Mr. Guthrie stultifies himself by confessing that he has never seen a case of the accident, about the pathology of which he speaks so confidently. "I have known the bladder ruptured by a fall from a height when a quantity of urine was contained in it, but not solely from its own action or from over-distension."‡ Mr. Dewar says: "When the bladder gives way in consequence of retention of urine, there is, as every one knows, no rupture of the coats nor rent in the bladder; the fluid escapes by one or more small openings, generally not larger than the point of a probe, which have been produced by inflammation an duleceration."§

This author, likewise, has no reasons to give for what "every one knows." Gross has the following: "When the laceration takes place as a consequence of the inordinate accumulation of urine from paralysis of the muscular fibres of the bladder, hypertrophy of the prostate gland, or obstruction of the urethra, there is almost always some degree of softening of the different coats of the organ, thus predisposing them to this occurrence." * * * "A similar predisposition is sometimes established by the ulcerative process, and by excessive inflammatory action eventuating in partial gangrene."‖ Sir Henry Thompson says: "Rupture from retention takes place rather by ulceration than mechanical extension of its coats,"—the bladder's"* It is evident that this is a borrowed opinion, for this authority acknowledges that he never had a case under observation. Mr. Syme writes: "When retention of urine, from whatever cause it may proceed, is not remedied, the pressure occasioned by the confined fluid at length induces ulcerative absorption, and forms a breach which allows the urine to escape into the surrounding cellular substance."† For the reason that the error has become wide-spread by each man's adopting the opinion of his predecessor, it will be refuted the more readily by an appeal to facts. It has been maintained that when the bladder is ruptured by direct or indirect violence, even in such a case there must have been precedent ulceration. The absurdity of such a view is evident both clinically and by *post-mortem* evidence, for the great proportion of the subjects never had any bladder trouble previous to the injury, and the autopsies always showed clean rents in the organ.

Stricture as the cause for rupture lends some *à priori* support to the ulceration theory; but such an argument is negatived by the facts—first, that the foregoing cases were all comparatively young men, whose condition gave no evidence of the formation of a vesical ulcer; and second, on dissection no such disease of the bladder was found in Sheehan or Dager; and had it existed in Sir Everard Home's cases, that writer unquestionably would have mentioned it. In the case of Dager, the circular perforation in the mucous coat is to be explained by the contraction consequent to the well-marked concentric hypertrophy of the bladder, there being no doubt that such hypertrophy was developed subsequently to the rupture. This is the true state of the case; for it is not to be supposed that any force, whether external or internal, could rupture a viscus the walls of which were as thick and strong as those of the left ventricle.

Without reference to the cause, authorities differ as to the most frequent seat of rupture. Smith, who has formulated the results of his large number of cases, places it at the superior fundus through the peritoneum.‡

Birkett, who is the next best authority, agrees with Dr. Smith so far as regards the implication of the peritoneum, and adds that the rent generally commences at the attachment of the urachus, and pursues a vertical, transverse, or oblique course through the posterior wall of the bladder.§

Whether this localization suffers any modification when stricture is the cause of the rupture, cannot be determined by reason of the paucity of the recorded cases. Such a consideration is no hindrance to Mr. Syme's dogmatism. According to him, "when the bladder gives way in such circumstances" (in straining from stricture), "it does so most frequently near the neck, where there is no covering of peritoneum." The fact may be taken for what it is worth, that the necropsies of Dager and of Home's patients confirm Mr. Syme's remark; for in the former the rupture was in the anterior wall of the bladder near the neck, and in the latter the rent in the peritoneum occurred subsequently to the effusion into the cellular tissue. If we regard the difference of the seat of rupture to be dependent on the etiology, the opinion may be sustained by the supposed complicity of the prominent sacro-vertebral angle in causing the accident when a distended bladder is driven

* Records of the First Surgical Division, Bellevue Hospital.
† Practical Surgery, by Rob't Liston. Fourth Ed. London, 1846, p. 481.
‡ On the Anat. and Diseases of the Neck of the Bladder, by G. G. Guthrie. Lond., 1834, p. 109.
§ Edinburgh Medical and Surgical Journal, vol. xxxi., 1829, p. 89.
‖ A Practical Treatise on the Diseases and Injuries of the Urinary Bladder, the Prostate Gland, and the Urethra, by S. D. Gross, M.D. Phil., 1851.

* Op. cit.
† The Principles of Surgery. Contributions to the Path. and Practice of Surgery, by James Syme, F.R.S.E. Edited by Donald McLean, M.D., L.R.C.S.E. Phil., 1866, p. 383.
‡ Op. cit.
§ Art. by Mr. Birkett, in Home's Surgery. N. Y., 1870.

against the bone by a fall, these conditions not being present when stricture is the cause.

Authorities are agreed that the appearance of the laceration in each of the three coats is what would be expected from the physical characters of the respective membranes, the peritoneum exhibiting a clean rent, the muscular coat the ragged appearance of torn muscular fibre, and the mucous a somewhat œdematous opening that is not always easy to find.

To the extravasation of urine are due the abscesses that form around the bladder, the peritonitis, and the cellulitis; to the combined effects of the irritable bladder, and the interference with the free discharge of urine, are due the hypertrophy of the receiving organ, the inflammation of the ureters and pelves, and the changes in the kidney, of which changes none is more common than interstitial nephritis. The method of repair demands a short consideration.

There is no evidence—either from analogy or observation—that union occurs between the edges of the laceration. Nevertheless, the idea that the wound may be closed in the usual way, is the foundation of Mr. Barkett's recommendation—to keep the bladder empty, and of Dr. Blundell's advice—to sew up the rent, accurate apposition being accomplished in both ways.

It is more rational to suppose that a tissue constantly bathed by urine, and subjected to frequent contractions, is not repaired after the manner of surface wounds. The cellular and peritoneal inflammation which result from the irritation of extravasated urine, must be regarded as partly conservative. This opinion is supported by the appearances found after death. Dupuytren even believed that in a case under his charge a new bladder was in process of formation, for on *post-mortem* section there were found firm bands of adhesion between the abdominal parietes and lateral parts of the bladder completely surrounding a rent in the superior fundus, whilst other adhesions formed a pouch behind the bladder, which pouch contained a urinous fluid. This process is illustrated still better in the case of Dager, with the difference of cellular tissue instead of peritoneum, and Sir Everard Home's specimens instance an attempt at the same thing.

One more illustration: At a meeting of the Dublin Pathological Society, held December 6, 1845, Mr. Hamilton presented a specimen of a bladder ruptured by injury. The intestines had become glued by peritoneal inflammation around a large rent in the bas-fond, thus forming a reservoir for urine and preventing the diffusion of the fluid.

Symptoms.—The symptoms of ruptured bladder are: painful distension relieved without the appearance of urine at the meatus, the subjective sensation that something has given away internally, inability to urinate in spite of frequent straining, and the constitutional symptoms of shock followed by those of peritoneal or cellular inflammation. The local signs are those of extravasation of urine, and the presence of blood in the fluid drawn by the catheter.

Without going over ground that has been so well travelled before in discussing these symptoms, it is sufficient to remark that all except the first—pre-existing retention suddenly relieved without the passage of water—are inconstant. There are well-authenticated reports of patients with bladders ruptured by injury, who walked miles after the injury, who passed water naturally, who suffered no immediate pain, and who had no constitutional symptoms of shock, nor local signs of extravasation. From the cases, it does not appear that when stricture is the cause of the rupture, these symptoms suffer any important modification.

For the purpose of immediate diagnosis, it may be well to remember that we expect and find less constitutional disturbance with a rupture from stricture than with the same lesion from injury. No absolute rule can be given for the differentiation of rupture above from rupture below the peritoneum. Dr. Thorp thinks that if the catheter can be passed through the laceration, a valuable conclusion may be drawn from the relative freedom with which the urine escapes; for, if the urine be free in the peritoneal cavity, it will flow as readily as if it came from the bladder itself, whilst extravasation into the cellular tissue would be attended with a proportionately tardy flow.* If one is fortunate enough to direct the point of an instrument in the necessary manner, an inference may be drawn from the result; but as such success must be exceptional, it may become necessary to establish a probable diagnosis from other considerations.

In looking over the history of cases of rupture from injury, it will be found that the general prostration was much greater, and the fatal result occurred much sooner, when the rupture was into the peritoneal cavity, than when the cellular tissue was invaded. Later in the disease a reliable inference may be drawn from the predominance of inflammation in one tissue or in the other. There is no reason why these data should not be applied to stricture causing the same accident. In certain rare examples there has been extravasation sufficient to produce marked fluctuation of the abdomen. In such a case the diagnosis would be plain enough.

Prognosis.—Boyer,† Lawrence,‡ and Thompson§ regard a recovery from ruptured bladder as an impossible thing.

As has been seen, this opinion is now disproved, and the possibility of recovery established. The chances of a favorable result are supposed to depend on two things: the seat of the rupture, and the amount of urine extravasated. As to the first—when the rupture is below the peritoneum, that membrane is partially protected against a most intense inflammation; as to the second—the greater the effusion, the less the probability of its capsulation by a conservative inflammation. It is almost superfluous to add, that a case may present the most favorable aspect, but prove rapidly fatal through inefficient management.

Treatment.—The first concern of the surgeon is the management of the extravasation. First principles are not to be followed in all instances, and it may become a question whether the effused fluid shall be allowed to remain, or means be taken for its removal. Before any cutting is done let it be remembered that the obnoxious fluid is constantly reproduced, and that when its discharge is provided for by an artificial opening, the flow per urethram may wholly cease—a state of things that resulted most disastrously in the case of Dager. In the before-cited paper by Dr Thorp there is the history of a patient whose bladder was ruptured by a fall from a horse. A catheter was passed through the laceration, the urine drained off, and the peritoneal sac washed out with tepid water injected through the catheter.‖ The patient recovered. The method certainly deserves a trial. Its objection lies in the difficulty of determining whether the catheter has really passed through the rent, or has been coiled up in the bladder instead; its advantage lies in its applicability

* Observations on Rupture of the Urinary Bladder, by Henley Thorp, M.D., F.R.C.S.I., Dublin Quarterly Journal, 1868, p. 206.

† Boyer recommends a catheter to be passed, and incisions to be made, but says these measures are of no use, as the accident is absolutely fatal.—*Traité des Maladies Chirurg.*, 4me éd.

‡ "I am not aware of any case where the accident has happened in which the patient has recovered."—*London Med. Gazette*, 1830, p. 869.

§ "In any case a recovery has never been known to happen, and can not be regarded as possible."—*Op. cit.*, p. 289.

‖ Op. cit.

to rupture either above or below the peritoneum. For the relief of the extravasation, the following operations have been proposed: Dr. Blundell would make an incision above the pubes, wash out the abdomen, draw up the bladder, and sew the rent. Dr. Walker performed the lateral operation of lithotomy for a case in which a fractured pelvis complicated the lesion of the bladder. The patient recovered.* Here the extravasation was into the pelvic connective tissue. Dr. Harrison's operation—which he never performed—consists in puncturing the vesico-rectal *cul-de-sac* through the rectum, and inserting a canula. Paracentesis through the linea-alba was performed for the condition under discussion, by Bonetus,† and subsequently by Dr. Cusack.‡

Dr. Blundell's proposal is evidently borrowed from ovariotomy. It has not been practised, and probably never will be; for, although the gravity of the accident for which it is intended would justify anything that promised a chance of life, yet since the extravasated urine may be removed by puncture, it would be wrong to subject to incision and handling a tissue that should be treated with the same consideration as the cornea.

If, on palpation, the abdomen presented unmistakable signs of fluctuation, or if the signs of fluid could be felt by passing the finger high up in the rectum, then, as the sensation was more evident in one quarter or in the other, would either the operation of Harrison or that of Bonetus and Cusack be indicated. In the case related by Bonetus, blood only followed the puncture, a circumstance which the *post-mortem* showed to be due to the rupture of a large vein. The operation as performed by Cusack, and related in the words of that great man, has everything to recommend it. A patient in whom the bladder had been ruptured by a fall, was suffering such agony from the distension of the abdomen, that the puncture was made more for the relief of pain than for anything else. An incision two inches in length was made midway between the umbilicus and symphisis, and extended down to the peritoneum. The serous sac protruding through the incision, and presenting evident signs of fluctuation, was opened by a lancet, and exit given to a large quantity of normal urine. The patient felt complete and instantaneous relief.

Against Dr. Harrison's operation are urged the objections: First, the depth of the peritoneal reflection from the surface, rendering it difficult to reach the required situation with a trocar; second, the danger of hemorrhage from the superior hemorrhoidal artery; third, the liability of wounding some coils of small intestine. These objections will have little weight when we consider the impunity with which ovarian tumors are tapped through the rectum and vagina. Harrison's operation must not be confounded with Flurant's—puncture of the bladder through the rectum. The latter may become necessary for the same indication that demanded its employment in Sir Everard Home's patients.

With the exception of that of Dr. Walker, the above operations are applicable only when the rupture is below the peritoneum. When the effusion is wholly into the cellular tissue, although the danger of fatal peritonitis is greatly lessened, the fact that there are no efficient means for removing the extravasation, must modify the otherwise favorable prognosis. Walker's method would best fulfil the indications.

In performing the operation, care must be taken that the deep layer of the deep perineal fascia, as well as the pelvic fascia, is properly divided. The wound being kept patent, a free drain thus would be secured. The greater the extravasation, the more urgently this method is called for; but as the amount of fluid cannot be estimated, and as there are few surgeons who would care to perform the operation immediately after the occurrence of the accident, it would be better to wait until the supervention of diffuse cellulitis demands the removal of the cause.

Coincidently with or after attending to the extravasation, the urine is to be drawn off as soon as it reaches the bladder. This is to guard against further escape of urine, and to secure a contracted state of the bladder. For these purposes a medium-sized gum-elastic catheter is to be passed as far as the neck of the bladder—but no farther—and tied in. The instrument may be fixed and retained in position by adhesive straps passed from it to the penis. The retention of a catheter after the external division of a stricture has been abandoned by all good surgeons for the following reasons, for the working-up of which the profession is chiefly indebted to the labors of Dr. Gouley, of New York: First, the experiments of Prof. Simon demonstrated that the contact of fresh urine with tissues not possessed of epithelium, is followed by no bad result. The same thing has long been shown in the treatment of the wound of lithotomy. Second, the following consequences may ensue from retention of a catheter: urethral fever, urethritis, ulceration of the bladder and urethra, phosphatic deposits, and peritonitis. It is frankly admitted that this use of the catheter in the treatment of ruptured bladder is open to the above-mentioned weighty objections. The chills, fever, and suppression of urine which occurred so often after the operations of Mr. Syme and of other surgeons, when this line of practice has been followed, have brought happily into disfavor a useless and injurious custom.

It is well known that a catheter retained for several hours will have its point encrusted by phosphates, and a portion of this deposit remaining in the bladder may become the nucleus of a good-sized calculus.

Prof. Van Buren has known fatal peritonitis follow the retention of a catheter after external urethrotomy, the probability of such an occurrence being one of the reasons which induced that distinguished surgeon to abandon the measure.

Hunter says:—"If it is necessary to keep in the catheter a considerable time, it will be the cause of a great deal of slime and mucus being formed in the urethra and bladder."

Ulceration of the urethra has been known to occur, taking place at the junction of the penis and scrotum, the instrument being visible through the fistulous opening.

Prof. Bumstead tells of a case in which death resulted from ulceration of the bladder caused by a retained catheter.* Sir Henry Thompson cites a similar instance which occurred in the practice of Prof. Spence, of Edinburgh.†

In advocating the retention of a catheter in the treatment of rupture of the bladder, spite of the well-established ill-consequences of the measure, the least of several necessary evils is recommended. Being alive to the necessity of securing a contracted and quiescent bladder, chills, fever, and a smart urethritis must not be considered as contra-indicating the same. Rules deduced from the after-treatment of an operation must be modified when applied to the treatment of a grave accident. Ulceration of the bladder with subsequent

* Sepul. Anat., Lib. 5, sec. 24, obs. 12.
† Dublin Hosp. Reports, vol. ii., p. 315. 1818.
‡ Med. Comm. of Mass. Med. Soc., Art. IV., Case VI., vol. iii.

* Bumstead on Venereal. N. Y., 1866, p. 316.
† Thompson on Stricture. 1858, p. 273.

peritonitis demands more consideration. When instruments are used with ordinary care, and especially in the manner recommended, the occurrence of such an accident is somewhat visionary. Without doubt a prejudiced eye may believe the obnoxious cause to have produced an ulceration, which lesion in reality might have had a very different etiology. A case in point happened at Bellevue during the past year. An old man, with what proved to be medullary sarcoma of the prostate, had had vesical trouble from the commencement of the growth, and on his admission atony of the bladder was complete. The catheter was constantly used, being sometimes retained; and when passed, it seemed that the point of the instrument touched the vesical wall. The autopsy revealed a circular perforation in the bladder, for the occurrence of which it appeared certain that the catheter must be answerable; but a closer examination showed a rare form of croupous cystitis, a perfect cast of the bladder having been formed by a tenacious false membrane, and it was against this that the catheter had so often impinged, the proper mucous coat never having been reached at all.*

Boyer records a similar case, in which it is not stated that the catheter was used at all.

Speaking of perforating ulceration of the bladder, he says: "Chopart has opened the body of a man to whom this accident occurred as a consequence of a retention of urine caused by tumefaction of the prostate. . . . . A part of this liquid was extravasated in the pelvis, and came from the giving way of a gangrenous eschar situated on the left side of the bladder, and which was about six lines in diameter. This viscus contained besides a good deal of very fœtid urine; its internal coat was livid, blackish at different points, and so putrefied that it could be readily detached with the fingers."†

To sum up—the retention of a catheter for rupture of the bladder is a measure attended with certain evils; but it is equally true that the occurrence of the greatest of these evils is rare, and can be avoided by care in managing the instrument.

If the stricture of the urethra be too small to admit a No. 6 catheter, the calibre of the canal must be increased. If other means fail, there is no time to temporize, but Syme's operation must be performed at once. When the surgeon is confronted by that most embarrassing of all difficulties—an impassable stricture, the necessity for external urethrotomy without a guide is apparent. To those who, under circumstances requiring this operation, have known the anxious, weary search for a urethra deeply buried in a cicatricial tissue, it is needless to point out how peculiarly uninviting it would be when undertaken for ruptured bladder. Unfortunately, in the supposed case it would become a matter of absolute necessity.

The catheter should be removed daily for careful cleansing. The time during which it should be employed cannot be stated in days, but must be determined by the complete subsidence of inflammation in the tissues with which the urine has come in contact, as indicating that no more of the irritant is escaping.

Of the rest of the treatment there is little to say; it comprises a judicious management of the shock, the continued depressing effects of the accident, the peritonitis, and the cellulitis.

Teeth Replantation.—Mr. Coleman, an English dentist, out of fourteen cases has been successful in nine; operating on bicuspids and molars.

* Records of First Surg. Div. 1870.
† Traité des Mal. Chirurg. Quatrième éd., tom. ix., p. 41.

CASE OF SUDDEN DEATH AFTER LABOR.

By THOMAS F. COCK, M.D.

NEW YORK.

A. W., primipara, æt. 36. Confinement was expected in the latter part of April. She enjoyed good health during her pregnancy, being free from most of the discomforts attending that condition, and was actively engaged in household duties. She was free from œdema, headache, nausea, or dyspnœa.

On the 26th of March she had some hemorrhage, not the result of exertion, and so slight as to have ceased before my arrival. No examination was made.

On the 3d of May I was summoned early in the morning on account of hemorrhage, which had taken place soon after rising. I saw the vessel containing the blood, and also the cloths; the whole quantity was less than a quart, and no effect on the pulse was noticeable.

Supposing that the placenta was presenting, an examination was now made. The os uteri was undilated, and no evidence of the presentation could be ascertained, only the fœtal head was obscurely felt through a thick cervix uteri. The hemorrhage was trifling, but it was deemed advisable to insert an alum plug, which was suffered to remain for twenty-four hours. There was no flow after this, except dark-colored serum. I stayed all night, expecting labor to come on; but there was no dilatation of the os uteri when the alum was removed in the morning (May 4th). About 12 midnight, under the influence of moderate pains, the os uteri was found in size about half a dollar; no placental edge could be felt, nor was there any hemorrhage. About 5 A. M. (May 5th) the os had fully dilated, and I ruptured the membranes. After rather prolonged, but not very severe expulsive efforts, the fœtus was born still, a little after 7 A. M. The cord was pulseless, and the umbilical vein had a black streak; it did not bear tension, but tore off at the placental attachment when put on stretch. There was no hemorrhage, but the pulse had risen somewhat in frequency. The patient now asked for brandy, which was given. On making the examination for the placenta, it was found entirely in utero; and, pursuing it still farther, was found adherent throughout.

I noticed the patient did not complain as much as usual on the introduction of the hand, nor in fact during all the manipulation necessary for detaching the placenta. By persevering, but not prolonged efforts, the placenta was peeled off and withdrawn. The uterus did not act energetically, but *there was no hemorrhage.* Ergot was now given to insure contraction, and manual compression was continued; but the uterus did not respond to these efforts. The pulse became more frequent and more feeble, and the patient more inanimate, without jactitation. Brandy was given as freely as she could take it, but without response in the pulse.

Fearing there might be internal hemorrhage, I reintroduced my hand into the uterus, and found about two ounces of clot. A bit of the placenta about an inch square was removed.

The patient continued sinking—the face was not anæmic but rather flushed, and the lips purple; there was no jactitation, no marked dyspnœa—the intelligence was clear. The pulse faded gradually, the extremities became cold, and the patient expired about two and a half hours after delivery.

Neither anæsthetics nor instruments were used during the labor.

Autopsy—Twenty-six hours after death. The body had been kept on ice. The uterus was voluminous in

size, its muscular structure apparently normal, its tonicity very feeble. The mucous surface was deeply stained with dark-colored blood; there were no clots in utero, and, with the exception of a small shred of membrane, the secundines had been entirely removed.

The kidneys were large, estimated about eight ounces each.

Liver fatty to a moderate degree.

Lungs exhibited only *post-mortem* congestion.

Heart rather large (about ten ounces), with a very considerable depo it of fat over its surface; but the walls were not softened, and there was no appearance of interstitial fatty deposit. Valves normal. In the right ventricle was a clot, which extended from the apex through the tricuspid valves, and into the ramifications of the pulmonary artery as far as the second division. Its thickest part was near the apex, where it was lightest in color. Above it became more attenuated in size, but darker in color as far as it was followed.

Remarks.—Painful as is the conclusion of such a case, it is not clear to my mind how the issue could have been averted. The labor was not prolonged nor severe. No anæsthetic was used to impair the action of the heart. The hemorrhage from beginning to close did not exceed a quart; and previous to labor the pulse was normal. The mode of death was not by anæmia, but more by apnœa.

The heart clot was the only really abnormal result of the autopsy.

NEW YORK, 13 W. 36th St.

Reports of Hospitals.

HYDRATE OF CHLORAL IN DELIRIUM TREMENS.

BY AUG. C. KINNEY, M.D.

HOUSE SURGEON CHARITY HOSPITAL, N. Y.

HAVING served recently at the Work-house on Blackwell's Island, where a considerable number of cases of delirium tremens are constantly being sent for treatment, I improved the opportunity thus presented of testing the comparative values of hydrate of chloral, bromide of potassium, and sulphate of morphia in this disease.

To be sure of the doses given, I weighed the salts carefully and prepared the solutions myself. Of the hydrate of chloral the strength of the solution was 60 grains to the ounce of water. I made it well diluted purposely, as a strong solution is excessively irritating.

The cases to be treated were divisible into two distinct classes. The first class comprised those who, having been used to considerable alcoholic stimulus either habitually or at times, were attacked with delirium tremens from a few days to a week after admission, on account of the withdrawal from use of their accustomed stimulus.

The second class of cases was to be found amongst those sent here to be treated especially for their delirium tremens. They were inveterate drunkards, and had been attacked with this complaint during or immediately after a long debauch. It is this class of cases in which it is most difficult to produce sleep and appetite, and in which dangerous complications are most apt to arise.

Bromide of potassium was given at first to many cases of both classes. Under the use of 60 grains given every two hours, the patients of the first class would become quiet, go to sleep, take nourishment, and hallucinations would usually pass away within from 24 to 48 hours. Hydrate of chloral produced sleep much more quickly, for which a dose given every two hours of 30 grains was usually sufficient. My own impression, however, is that it does not remove the nervousness as efficiently as the bromide.

In the second class of cases delay in producing sleep has even proved fatal. While trying to get the patient quiet and asleep under use of bromide or sulphate of morphine, he is attacked with pneumonia or uræmia and dies. With this second class of cases I have given as high as 120 grains of bromide every two hours for two days without producing sleep, and I believe it to be impossible to get them quiet by this means with a safe dose. Sulphate of morphia I have also given in very large doses by hypodermic injection, and though more efficient than the bromide it requires to be given in larger doses than are always safe.

Those of this second class of cases which I treated with hydrate of chloral, in sufficient doses to produce sleep at once, recovered in the shortest time. In obstinate cases a dose of 60 grains of hydrate of chloral was given, but other cases required 90 grains; in no case more. In less than two hours the patient usually went to sleep, and slept from four to five hours; and on awakening another dose of 60 grains was given with liquid food, milk or beef-tea. The patient would then go to sleep again, and on awakening the second time would probably be free from hallucinations and take food with a relish. During convalescence the bromide was frequently substituted for chloral, with good results. In many cases I gave the chloral after the ineffectual use of both bromide and morphine, with success; and in one instance succeeded with 90 grains of chloral in producing sleep, when I had given the bromide for 48 hours previously, in doses of 120 grains repeated every two hours. In no case have I observed any serious symptoms in consequence of the larger dose of chloral mentioned, but believe it should be given cautiously. Smaller doses often repeated do not have the effect of larger doses.

I believe that too much care cannot be taken in protecting the patient from irregularities of temperature. The sooner we get the patient to sleep and quiet the less liable he is to be attacked with complications. The blood and kidneys are already in such a condition, that the slightest causes will produce pneumonia, uræmia, or other troubles. We should be constantly looking for them and guarding against them. The pneumonia accompanying delirium tremens is the more dangerous since it is most likely to attack two or more lobes, and is apt to be often overlooked by the physician on account of no accompanying cough.

Out of 40 cases treated by various methods as above stated 5 died. Post-mortems were made on 4 out of 5 deaths. Of these four, three had pneumonia (one with pachymeningitis and pneumonia) and one had uræmia (acute congestion of kidneys and albuminuria), &c. Pneumonia was diagnosed in the case in which no post-mortem examination was made, so that four out of the five cases which died had pneumonia; out of the three cases in which pneumonia was found in post-mortem examination, in two cases the pneumonia was found to have involved two or more lobes. In two cases also out of three, fibrinous clots of the heart were found.

TORSION.—Dr. Duncan, of Glasgow, recently informed Dr. Fraser, of Montreal, that he had employed torsion twice on the femoral artery, and once in the brachial, successfully.

Progress of Medical Science.

Ulceration of the Jugular Veins.—S. W. Gross, M.D., Philadelphia (*Am. Journ. Med. Sciences*), reports thirteen cases of ulceration of the jugular veins, communicating with an abscess or an open sore, from which the subjoined practical lessons are deduced:

First. That acute, destructive inflammation of the tissues of the neck, and deeply seated abscess, which has existed for some time, and suddenly takes on acute action, may, if unchecked in their progress, lay bare and perforate blood-vessels, and that this result is to be feared more particularly when diffuse cellulitis follows grave forms of scarlatina, or other acute specific diseases.

Secondly. That scrofulous abscesses and ulcers are not always indolent, but may under favorable circumstances, that is, in an enfeebled, broken-down condition of the system, rapidly assume phagedenic action, and lead to the same complication; and

Third'y. That the large arterial and venous trunks are more liable to be involved than their branches.

Ovarian Cysts.—G. D. Beebee, M.D., of Chicago, Ill. (*Am. Journ. Med. Sciences*), observes, in regard to ovarian cysts, what he does not remember to have seen stated, viz.: that besides the well-known tendency of monocysts to become polycysts with advanced growth, there exists the further tendency to a cancerous degeneration. While the fluid found in the primary cyst contains more or less coagulable material, the fluid obtained from the secondary cysts is much more highly charged, and in some instances will, upon the application of heat, coagulate to solidity. This has suggested the probability that, as a larger amount of plasma is here produced than attains the full development of normal tissue, degeneration of the exudation corpuscle and medullary carcinoma results. This view of the cancerous tendency of polycysts has given force to the recommendation of an early extirpation.

Influence of Bromide of Potassium on Opium.—J. M. Da Costa, M.D., of Philadelphia (*Am. Journ. Med. Sciences*), calls attention to the happy influence of bromide of potassium on opium. It does not destroy either the anodyne or the hypnotic effects of the opiate; on the contrary, it rather heightens both, and more particularly the latter. To quote from a patient's letter, "The more bromide I take the sooner do I get sleep after a dose of opium. Two doses of bromide (20 grs. each) are not usually enough to counteract the exciting effects, and procure sleep under five or six hours from the time of taking." The faintness from opium is the phenomenon most markedly prevented; next in the readiness of being influenced stand the headache, vertigo, and nausea; then the itching of the surface, and dry mouth. The bromide has seemed to act best when it is given some hours before the opium, and 40 to 60 grains—generally 40 grains—prove sufficient.

Hydrate of Chloral in Singultus.—T. L. Leavitt, M.D., of Germantown, Pa. (*Am. Journ. Med. Sciences*), records a distressing case of singultus which was relieved by five-grain doses of chloral hydrate in solution. The affection was almost immediately arrested by it, and never afterwards failed to control the spasm in a most satisfactory manner, proving of the greatest comfort to the last remaining hours of the sick man.

Tubercular Pneumonia.—D. Francis Condie, M.D., of Philadelphia (*Am. Journ. Med. Sciences*), believes that the term "*tubercular pneumonia*" is adapted to the following class of cases: When a patient, affected with tuberculosis, is, from exposure to cold or damp, or to sudden transitions of atmospheric temperature, or from deficient clothing, attacked with bronchitis or pneumonia, the course of the disease towards a fatal termination is very rapid, as well on account of the crippled condition of the tuberculated lung, rendering it incapable of sustaining the inflammatory process set up in its tissues, until a favorable close occurs, as from the depressed vitality of the entire system, which is invariably attendant upon tuberculosis, precluding a resort to the therapeutic means adopted to arrest the inflammation of the lung tissues previously to their entire disorganization. The profession almost universally recognize the convenience of the term tubercular meningitis, tubercular peritonitis, etc.; why not also, then, tubercular pneumonia? indicating, respectively, inflammation seated in the tuberculosed meninges of the brain, in a tuberculosed peritoneum, in tubercular lungs, etc.

A New Clamp in Ovariotomy.—Washington L. Atlee, M.D., of Philadelphia (*Am. Jour. Med. Sciences*), states that in his numerous operations for the removal of the ovary he has tried every method of securing the pedicle, except that of *pocketing* it, and he has arrived at the conclusion that the clamp is the safest, best, and most successful in its results. This accords with the experience of Mr. T. Spencer Wells, of London. It is, therefore, of some importance to select that form of instrument which will best meet the objects to be attained. Until recently he has used the one employed by Mr. Wells in his earlier operations, simplified in its mechanism, but essentially the same in action. Still, the results are not quite satisfactory, particularly with a large pedicle, as the lips of the wound are not sufficiently approximated.

To overcome these objections, he has modified the form of the clamp so that the pedicle may be compressed in the *linear* direction of the wound, and at the same time to limit, within certain points, the expansion or spreading of the pedicle when the blades of the clamp are screwed together.

Case of Anosmia.—Dr. Hamilton, of Philadelphia (*Am. Jour. Med. Sciences*), related at a meeting of the College of Physicians and Surgeons, a case of the loss of the sense of smell following a blow on the occiput.

Puerperal Eclampsia.—From an extended review of this subject in the *American Journal of Medical Sciences*, the following conclusions are drawn: 1st. That convulsions are centric or eccentric; 2d. That determination of blood to the head, although productive of a comatose state, is not the cause of convulsions; 3d. That convulsions follow directly the loss of blood on stoppage of the circulation of the brain; 4th. That the whole motor nervous tract is involved in the production of convulsions, and that other portions of the brain are not directly instrumental in producing them; 5th. Convulsions are consequent to the abstraction of nutrition in the motor portion of the brain; 6th. Anæmia predisposes to convulsions; 7th. That anæmia is produced by albuminuria, and connected with this is dropsy; 8th. That the blood in albuminuria and dropsy is deprived of its nutrient elements, and becomes hydropic; 9th. That the constitution of the urine corresponds to the constitution of the blood, and the amount of urea in it is in accordance with that found in the blood; 10th. That neither urea nor carbonate of ammonia in the blood constitutes the cause of convulsions; 11th. That in albuminuria the predominant symptoms are sopor and coma; 12th. That albuminuria is to be regarded in the same category of diseases as hæmorrhage; 13th. That from the constitution of the blood in preg-

nancy, and especially when its hydropic condition is increased by albuminuria, there is engendered an especial aptitude to the occurrence of convulsive attacks, which has been called *convulsibility*. This depends upon altered nutrition in the nerve centres; 14th. That puerperal eclampsia and epilepsy are analogous affections; 15th. That the mechanism of convulsions involves the production of syncope, which depends upon the suspension of the heart's action, and that this occurs through the instrumentality of reflex action, by shock, or by loss of blood; 16th. That the carbonic acid of venous blood is not the originating cause of convulsions; 17th. That the order of convulsive movements is progressive, from above downwards. Syncope and loss of consciousness constitute the first symptoms; secondly, convulsions begin in the muscles of the eyes and face, and then occur in those of the larynx, throat, chest, and extremities; thirdly, when laryngismus or complete asphyxia is produced, the convulsions are suspended by coma; 18th. That if air be gradually introduced into the veins of an animal, asphyxia is produced and no convulsions occur; but if introduced suddenly, so as to distend the right side of the heart and prevent its contractions, convulsions immediately follow. The same is the case with oxygen, carbonic acid, and other gases; 19th. When air and other gases are introduced into the carotid arteries, in amount sufficient to produce pressure, apoplectic symptoms are the consequence; but if air or carbonic acid, in quantity capable of being absorbed by the blood, be introduced, its presence is tolerated by the brain; 20th. That carbonic acid is irrespirable, and positively stupefying when inhaled, hence asphyxia can be produced by it; 21st. That when asphyxia is produced in the course of convulsions by the impediment to respiration, and the blood becomes completely venous in the lungs and circulation, it, in connection with the pressure induced by impeded respiration, terminates the attack by a species of narcotism. In this way convulsions are self-limited.

A New Vesicant.—The Dutch physicians of Java have for some time used a vesicating tincture which is described by a contributor to *The Australian Med. Jour.* as follows: Like Cantharides, Tinct. Andol Andol is obtained from a fly which is found in great abundance in China, and is of a dull, leaden, dirty color, and about twice the size of the Spanish fly; in general appearance being not unlike the large Australian blow-fly. The tincture, which is the only preparation which the writer had seen, is prepared by the Dutch apothecaries, who import considerable quantities of the flies for this purpose from the Celestial Empire. The tincture is painted on to the surface of the part to be vesicated and dries in a few seconds, its effect being produced in from three to four hours. Before applying it, the skin should be washed with soap and water, and then with common vinegar.

Conveyance of Disease by Disordered Nerves.—Dr. Moxon, of Guy's Hospital, reports, in *The Lancet* of June 17th, the pathological appearances in three cases, which are evidence of this singular power which is thought by some to reside in the nervous system. In one, symmetrical bands of pleuritic adhesion were found to follow the course of the third and fourth dorsal nerves of both sides so exactly, that an examination of the spinal cord was instituted, and at the origin of these nerves was discovered an old dilatation of the ventricular cavity, sufficiently large to admit a No. 4 catheter, and two inches long. This was the only abnormal appearance in any of the nervous centres. Another case, which died of paraplegia, was discovered to have opposite to the eleventh and twelfth dorsal cartilage, a tubercle which occupied, and had nearly destroyed, the cord at that point. In the abdomen a crowded zone of miliary tubercles extended around the cavity of the peritoneum, lining the hypogastrium and false pelvis. It was remarkable that no tubercle was found on the diaphragm, omentum, or other viscera.

Another patient, who during life had had painful paraplegia with headache, aphonia, and paralysis of the left side of the tongue, revealed, after death, a free scattering of soft, round sarcoma cells in the course of the spine, in the bones. A mass of this cancer germ in the basilar portion of the temporal bone had destroyed the eighth and ninth cranial nerves on the left side. No visceral cancer was found. The muscles and nerves were atrophied, and the greater part of the cricoid cartilage of the left side was in a pulpy condition. It was not well determined if this degeneration was cancerous, but the coincidence of the location of the cancerous mass at the root of the eighth nerve, and the degeneration of tissues at its distribution, was too remarkable to pass without notice.

Suicide by Swallowing Chloroform.—A case of suicide by swallowing an ounce of chloroform is reported in Australia, which presents some points of interest. The deceased man was suffering from delirium tremens, brought on by a long course of drinking, and in this state procured and swallowed the chloroform. He immediately became insensible. His eyelids could be opened and pupils touched without the slightest proof of sensibility being manifested. When things were at the worst, and the man apparently dying, Mr. Gillbee and Dr. Neild, the medical men in attendance, determined to try the injection of ammonia, according to Professor Halford's plan of treating snake-bites. Ammonia, in the proportion of one part to two parts of water, was injected four times into the veins of the arms. Two drachms were injected altogether. The effects were most promising: sensibility returned, and after five hours the patient could sit up and talk. He died, however, suddenly next day, apparently from syncope. The brain was found to be highly congested, and smelled of alcohol. The liver was diseased.—*Med. Times and Gazette.*

Pathology of the Prostate Gland.—Dr. Kraus states that it may now be laid down as a rule, admitting of but few exceptions, that all diseases of the prostate take their origin in catarrh of the urethra or bladder. In consequence of the entrance of large quantities of the catarrhal secretion, the gland becomes greatly swollen and enlarged. The entrance of the secretion is attributed to the loss of tone in the bladder, and the secretion being arrested in the prostatic portion of the urethra and subjected to pressure, is forced into the ducts. The cavity of the caput gallinaginis also becomes filled with the secretion, and from thence the catarrhal inflammation spreads along the ejaculatory ducts to the vesiculæ and epididymis. In some cases copulative power becomes lost by the agglutination or entire adhesion of the ejaculatory ducts. Bloody semen occurs when, in hæmorrhagia or vesical catarrh, the semen is forcibly expelled through the adherent ducts. Muscular tissue is so prevalent in its texture that the formation in its substance of abscess is of very rare occurrence.

Strictures of the urethra from enlargement of the prostate are also of extreme rarity.—*The Practitioner.*

The Bromides of Quinine, Morphine, and Strychnine are mentioned in the last number of *The Practitioner*, in connection with some remarks by Dr. B. W.

Richardson on their therapeutic effects. These organic bromides, as he terms them, are made by the action of hydrobromic acid upon the alkaloids of these substances, or of the bromide of potassium upon their salts. All of them are soluble, and he has found it most convenient to employ them in the form of syrups made in the proportion of one grain of the quinia salt, one-fourth of a grain of the morphia salt, and one-thirty-second of a grain of the strychnia salt to the drachm of syrup. They may also be combined in couples or all together in the same proportions, one drachm of the syrup being the dose.

Speaking generally of all these salts, he says: The bromide throughout, in so far as its action is indicated, is eliminative and sedative. He is satisfied that the bromide of quinine can be administered freely, where quinia itself or other of its salts cannot be tolerated. He thinks it possible to give much larger doses without producing cinchonism, than with any other of the compounds of this substance, and is of the belief that its use in the early stages of eruptive diseases would do very much to allay the severe nervous symptoms which usher them in. He has satisfied himself by experiment, that the bromide reduces, or rather subdues and prolongs, the action of strychnia on muscular motion; and lastly, a smaller dose of this salt of morphia is, in his opinion, required than is effective in the case of the other morphia salts, and its repeated administration is not followed so certainly or quickly by those after effects which sometimes preclude their use. This combination has had the most happy effect when administered for the purpose of calming neuralgic pain. The bromide of strychnia has been of most marked service in cases of what we sometimes call "nervous dyspepsia." He remarks that none of these remedies are admissible, however, in cases where there is much dryness and irritability of the mucous membrane of the pharynx and larynx, on account of the long-continued cough and spasm which they induce.

Grafting of Mucous Epithelium upon a Granulating Wound.—On the 13th of February last, Dr. V. Czerny (*Centralbl. f. d. Med. Wissensch.*) cut off a long uvula; half an hour afterwards several small pieces of the mucous membrane were, with the aid of adhesive plaster, fastened upon the surface of a couple of healthy ulcers remaining after an operation for the removal of breasts. In one the grafts failed, while on the other, on the 20th of February, two of the grafts appeared as tender islets of epithelium with bright red borders, which became confluent on the 25th. Notwithstanding the islets grew rapidly to the size of a thaler (1, 5-16 in.), the centres did not become white and opaque, as occurs in the case of grafts of epidermis, but the surface remained pale-red, smooth, and glistening, as if covered with a pellicle of collodion. The formation of epidermis soon advanced from the margins of the ulcers, and blended with the islets of epithelium, and the wound became gradually reduced to a very small circumference. A microscopic examination on the 21st of February showed large flat cells with very plain nuclei, such as are to be seen in the mucous membrane of the mouth. Later were to be seen in the deeper layers, caudate cells, which could not be distinguished microscopically from cells taken from the edges of the cicatrix.—*Allgem. Medic. Central Zeitung.*

A Woman with Four Mammæ.—Dr. Lorain was called to attend a primipara who was delivered on the following day of a child before time, and whom he found to have four breasts, two in the normal positions and two others nearer the axillary spaces, the latter being about the size of small oranges. Her menstruation had been regular, and at the time of her periods she felt pain in the small mammæ. The colostrum secreted by these was scanty and the milk corpuscles less abundant. Notwithstanding an attack of fever, the secretion of milk was regular in all four of the breasts, but the milk from the supplementary breasts proved, on microscopic examination, to be very poor in quality.—*Allgem. Med. Central Zeitung.*

The Influence of Syphilis upon Pregnancy.—According to Dr. Julius Löwy, from January, 1868, to the end of April, 1869, there were treated in the General Hospital of Vienna 99 pregnant women tainted with syphilis; of this number, 37 were treated by inunctions of mercury, 5 by hypodermic injections of the bichloride, and 58 were not treated.

Of the 4 who were subjected to the hypodermic mode of treatment, one was discharged from the hospital as cured. Another aborted a living fœtus. In the case of the remaining two, the viability of the fœtus could never be established, as they both aborted a putrefying mass.

In the cases of treatment by inunctions, from 1 to 50 were used, and in 33 of these women the viability of the fœtus was established beyond doubt, and the treatment was commonly undertaken during the earliest months of pregnancy. Abortion took place in this class in the proportion of 13.5 per cent., and in the case of those not treated in the proportion of 29.5 per cent. The number of living fœtuses in the first class was 75 6 per cent., in the second 76.4 per cent.; 40.5 left the hospital cured.

This writer adopts the following conclusions:

1. Mercury exerts no injurious effect either upon the pregnant woman or upon the life of the fœtus.

2. The inunctions are not the cause of the abortion. — *Wiener Medicinische Wochenschrift*, 1869, p. 39.

We give to the above the remarks of Dr. F. Weber in the *Berliner Klinische Wochenschrift*, who quotes the statistics founded upon 40 syphilitic pregnant women, of whom 12 in the first half and 28 in the last half of pregnancy were submitted to energetic treatment by means of mercury, and followed in some cases by iodine, general baths, cauterization of the labia majora, vagina, and cervix uteri. Drastics, which were also employed in the case of other syphilitic patients, were the only means omitted. Of the 40, 33 left the hospital cured, and the pregnancy remained normal; 7 were delivered in the hospital, 3 at the ninth month, of infants completely developed, 4 prematurely, 1 at six months, 2 at seven months, and 1 at eight months. The children of the last four showed no traces of syphilis, but died of inanition at the end of two days. Of the four mothers who were prematurely delivered, one, in addition to her syphilis, had erysipelas of the face accompanied with intense fever, and another had a recurrent fever. The progress of the labor was normal in six, excepting in the case of one who had the recurrent fever and a slight puerperal endometritis.—*Gaz. Med. de Strasbourg.*

Extractum Conii in Mastitis.—Dr. Allstädter (of Pest) has found the use of this remedy valuable in preventing inflammation of the breasts of recently confined women as a consequence of over-distension of the milk-ducts.

The doses are to be repeated four or six times daily. Care is needed in the selection of the extract, as it is very variable in quality.—*Allgem. Med. Central Zeitung.*

Camphor in Hospital Gangrene.—Fifteen cases have been reported by M. Netter (*Gaz. Med. de Paris*), in which the administration of camphor has arrested the progress of hospital gangrene although the disease was very severe.

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NEWSPAPER ADVERTISING.

Within the past few months we have received, mostly in an anonymous way, many newspaper paragraphs concerning medical gentlemen. They are as various in their style as in the subjects of which they treat. They are not confined to any particular set of individuals, but embrace men of high and of low degree. From the fact that all these notices are laudatory in character, we have a right to conclude that either the secular press is beginning to appreciate the profession as a learned and skilful body, or that the profession itself is waking up to the idea that it must be its direct instrument for puffing. Probably both these elements are at work in causing this paragraph epidemic, and under the circumstances it seems that we must submit to its ravages. Each one who becomes the subject of such notices has the ready excuse for its appearance, in that he is in no way directly or indirectly accountable for the same; and if crowded to suggest some possible reason for it, generally points to others who are older and better known than he who are brother victims. There is always some extenuation for the fault of a youngster when his teacher is guilty of the same misdemeanor. Why should he be blamed any more for being called a skilful operator, a distinguished professor, a profound diagnostician, and an over-run practitioner, than Dr. A. or B., who "has just performed, with his usual skill and success, his one hundred and tenth operation" on Mrs. B., the wife of the prominent citizen residing in High Street? It is certainly a poor rule that does not work both ways. If any of these victims of notoriety are asked how it is possible for any disinterested newspaper itemizer to describe so accurately all the different steps of an operation, and use the purely technical terms with such precision, the reason is explained in no more satisfactory way than that which could be given for the descriptions of operations by some member of the profession who enjoys the universal esteem of his brethren. If the younger physician or surgeon is to be brought to account, why should the older one be allowed to escape without a satisfactory explanation?

While we are willing to allow the possibility of an occasional flattering notice appearing in the public prints without the knowledge of the principal, and wholly beyond his control or prevention, we nevertheless believe that a great majority require some more satisfactory reason than that usually given. Every one in or out of the profession naturally desires a good reputation for learning and for skill with the general public, but there is always an honorable and legitimate way of obtaining it. If a medical man delivers some popular scientific lectures, he honestly labors for a scientific reputation with the public. In so far he does credit not only to himself but to the learned profession which he represents; but when such efforts are made for the ostensible purpose of making business or advertising a specialty, the case wears an altogether different aspect. In the rôle of a lecturer he appears as would any other scientific gentleman. Placing himself before an intelligent audience, either in the lecture hall or through the columns of a popular magazine, he stands as a public character upon his own merits. His reputation is a reward for services in the cause of popular scientific education. But when we step aside from this, and see special operations described and remarkable cures referred to as the result of the special skill of this or that surgeon, we are constrained to say that the same gentlemen, by causing or allowing such things to be said of them, no matter who they may be, lay themselves open to the imputation of being sneaking quacks. The higher their professional standing, the more heinous is the offence to their professional brethren.

It is idle to suppose that the fundamental objection to such practices is professional jealousy. The real element of the wrong-doing towards the profession is the false pretension to a non-discriminating public of extraordinary abilities. If the public were, in point of discriminating power, on a par with the profession, there would be no danger from any special pretensions. It is in this view that the code has forbidden the direct and the indirect self-laudation. All that the profession demand is fair dealing in the matter; it is either right to cause one's self to be puffed in the newspapers, or it is wrong, and if wrong, the wrong-doers should be brought to some account.

It is useless to enumerate the many covert means actually used by advertising individuals; some have their names and residences upon the begging pamphlets of circulars from Hospitals and Infirmaries, which are plentifully distributed in the pews of our fashionable churches; others, for the sake of having their hospitals puffed and subscriptions obtained from the public, consent to the infliction of being mentioned in connection with the institution as celebrated, skilful, and self-sacrificing medical men, who have for a long time devoted themselves to such and such a specialty. The profession are well enough aware what gratuitous medical services to any institution really mean. Considering the struggle for such places on the part of our

best men, it is hard to believe that the services offered are unconnected with selfish motives for professional advancement and prestige. If such gentlemen would stop there it would be well enough, but that they should be advertised on account of their connection with the institution is hard indeed.

But we will not serve our purpose by going more in detail in regard to the contrivances of these evil-doers.

Whatever may be said by the offenders in regard to being accessory to such acts of impropriety, it is a significant fact that when threatened with expulsion from a society, unless some means are used to prevent further paragraphing, the notices do not appear. Perhaps from that time the ambitious individual ceased to make any more important discoveries or to perform any more skilful operations.

It may be recollected that in a previous article we strove to point out the reasons why county societies should enforce articles of discipline. Such cases as those to which we have referred are exactly in point, and the experience in more than one instance has proved the utility of such tribunals. The injustice of allowing one class to assume privileges at the expense of others equally entitled to the same, is apparent, and no matter who the person may be, whether the President, a professor, or an humbler member, strict justice should be meted out. If some of our more prominent men are disposed to turn quacks, they must be punished as such. The example which the Society may make of them will have a salutary effect upon the lesser lights, who from their weaker understandings and susceptibilities might more easily fall a prey to the common adversary. Even if a conviction could not always be obtained, some facts of importance might be elicited which would minister to the curiosity of that portion of the profession who are at a loss to conjecture how continuous newspaper puffing can be carried on consistently with professional honor.

Reviews and Notices of Books.

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THIS useful annual is again before us. In the way of furnishing all necessary information concerning societies, medical colleges, hospitals, dispensaries, in fact everything pertaining directly or indirectly to medical matters in and around New York, it is everything to be desired. The present editor has done his work carefully and well. The volume is appropriately inscribed to the late Dr. W. B. Bibbins, who was one of the presidents of the Medico-Historical Society, and one of its active members. A well-executed, though not striking likeness of Dr. Bibbins forms a frontispiece.

THE MEDICAL WORLD.—This is a new monthly medical journal published in this city, and edited by Reuben A. Vance, M.D. The first number made its appearance on the 1st of July, and contains the following articles:—On the Physical Diagnosis of Brain Disease, by the editor; On the Value of Torsion as a Hæmostatic, by Dr. Chas. Phelps; Cutaneous Eruptions caused by Wearing Red Flannel upon the Skin, by Dr. P. De Marmon; A case of Osteo-Sarcoma following a Fracture of the Fibula, by Dr. E. Bradley. Under the caption, Selected Articles, is an abstract of lectures on the Internal Diseases of the Eye (with illustrations), by J. Soelberg Wells. Lastly follow miscellaneous items comprising twelve pages of the forty. The articles of special value are those by the editor and by Dr. Phelps. It is well printed. The publishers are Wm. Baldwin & Co., 21 Park Row. The subscription price is $1 50 a year, much too small to insure its pecuniary success.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 15, 1871.

DR. E. R. PEASLEE, in the Chair.

SUGAR FORMATION IN THE LIVER.

PROF. J. C. DALTON read a paper on "Sugar Formation in the Liver," of which the following is an abstract:—

The present condition of our knowledge on the glycogenic function is as follows: It is universally known that the liver, in healthy animals, when examined within a few minutes after death, contains an appreciable amount of glucose; that this glucose increases in quantity in the liver tissue after the circulation has ceased; that it will even reappear in the liver, separated from the body, after having been entirely washed out by a continued watery injection of the hepatic vessels; and that it is produced by a catalytic transformation of the amyloid substance or glycogene, under the influence of an animal ferment. All these facts, due to the remarkable discoveries of Bernard, have been abundantly confirmed by other experimenters, and are established in a manner which leaves no room for question. After detailing the experiments of Pavy in 1858, Harley in 1860, Meissner in 1862, Ritter in 1865, Schiff in 1866, Eulenberg in 1868, Prof. Flint, Jr., in 1868, and Prof. Lusk in 1870, the speaker remarked as follows:—

Two years ago I was desirous of ascertaining the exact time within which glucose would fail to appear in the liver extract examined by the ordinary method. For this purpose I experimented upon dogs, by cutting out a portion of the liver in the same manner as Prof. Flint had done, slicing it into boiling water, and making an extract of the coagulated liver tissue by rubbing it to a pulp in a mortar, and treating different portions by boiling with pure water, boiling with an excess of sulphate of soda, and lixiviating with cold water through finely powdered animal charcoal. In one instance the liver substance, immediately on being removed from the body, was crushed between two slabs of ground glass, rubbed to a pasty mass with animal charcoal, and lixiviated with cold water. The result was that, when the preliminary operations were completed in seventeen seconds and twenty-two seconds, the final extract of the liver tissue gave no reduction by the copper test; but at the end of fifty seconds it gave, rather slowly, a distinct though not abundant indication of sugar. In one instance different portions of the same liver were treated by boiling water, and afterward with animal charcoal, at the end of seventeen seconds, and at the end of one,

two, three, four, five, and seven minutes successively. In the first instance (seventeen seconds) there was no indication of sugar by Trommer's test: in the second (one minute), the sugar reaction was delicate but distinct. In the remaining five specimens the reaction, as appreciated by the eye, was constantly more and more marked. The appearance of the different test-tubes, after the completion of the experiment, was very striking. In the first, representing the liver extract at the end of seventeen seconds, the liquid remained perfectly blue and transparent; the remainder all showed a yellow or reddish color from the reduction of the copper, and varied only in the intensity of the hue and the quantity of deposit, which increased exactly in proportion to the time which had elapsed before the end of the operation.

According to these results, therefore, fifty seconds was the shortest time within which the liver tissue, removed from the living animal, could be found to give indication of the presence of sugar.

These experiments, however, were not fully satisfactory to me for several reasons. In the first place, when a substance like glucose invariably appears in an animal tissue after death with such rapidity that the interval is to be counted by seconds, it naturally suggests the propriety of extreme caution in adopting the conclusion that it was not there before, at least in minute quantity. Especially as nearly all observers are agreed that slight disturbances of the circulation or respiration, the struggles of the animal immediately before the operation, or the compressing effect of ligatures, will cause the appearance of glucose in the liver tissue at the instant of its removal, the necessity of such caution becomes very evident. Schiff states that in various animals, by simply compressing the abdominal aorta for ten minutes, or tying the principal blood-vessels of one limb, he has produced a condition of diabetes; and, on killing the animal, has found sugar present in the liver, though examined with all the requisite precautions. Even the use of ether is interdicted in experiments of this nature, owing to its liability to bring on a saccharine condition of the liver during life. According to the original observations of Bernard, the glucose produced in the liver was supposed to be constantly carried away by the blood of the hepatic veins, to be replaced by a fresh supply of new formation; so that a comparatively large amount of sugar might be supplied by the liver in twenty-four hours, and yet only a small quantity be present in the organ at any one time. We all know that, in point of fact, the amount of sugar in the liver tissue increases after stoppage of the circulation, just as urea accumulates in the blood after removal of the kidneys, or carbonic acid in the lungs after the stoppage of respiration. The question is whether this increase of sugar is simply the accumulation of a substance already existing in small quantity, or a matter entirely of *post-mortem* production.

It must be remembered, furthermore, that the chemical tests for glucose, as well as for other substances, have their limits in point of delicacy; and it is possible that they may fail to detect its presence, in some instances, simply on account of its minute quantity. There was a time when it was impossible to detect the presence of urea in healthy blood; and it was only after the requisite improvement in our chemical manipulations that this substance could be distinguished as a normal ingredient of the circulation. This consideration is of some importance in the present connection, because the quantity of liver tissue examined in the above experiments is of itself necessarily small. I have found it difficult to cut up in sufficiently thin pieces, and immerse in the boiling water within the requisite time, more than about 140 grains of the liver tissue. If a much larger quantity than this be used, it requires more time for completing the operation, and gives rise to the presumption that the sugar afterwards found may have been produced by fermentation during the interval which has elapsed.

For these reasons I was anxious, in the first place, to determine the exact limits of sensibility of the various tests for sugar, and the best manner of employing them; and secondly, to contrive some plan by which a larger quantity of liver tissue might be used for experiment, without increasing the time consumed in the operation.

Prof. Dalton then described the subjoined various tests for the detection of sugar: *Trommer's test*, which is the most convenient and generally useful of all the means, and is quite sufficient for ordinary purposes; *Almen's Bismuth solution*, and *Soleil's saccharometer*. The defects of each were noted, and before experimenting with *Fehling's solution*, he remarked that the polarizing apparatus cannot be relied upon for the detection of glucose in physiological investigations.

By far the most sensitive test for glucose yet discovered is that by Fehling's solution, which is a double tartrate of potash and copper dissolved in an alkaline liquid, and containing, in a given volume, a definite quantity of the copper salt. The extreme sensibility of this solution may be well shown by using it in dilute form.

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The most effectual way of using this test, for very small quantities of glucose, is to make the following mixture: Fehling's solution, one part; water, two parts. Of this mixture five cubic centimetres are placed in a narrow test-tube rather less than half an inch in diameter and about three and a half inches long. The tube should be placed in an oblique position, one inch in front of a background of black glass. It is fixed in this position by means of a cork collar, which embraces it at its upper extremity, and which is held by a metallic ring and screw attached to a wooden framework behind.

The dilute copper solution is then raised to the boiling-point by the flame of a spirit-lamp, care being taken not to apply the flame to the sides of the test-tube above the level of the liquid. When the copper solution has thus been brought thoroughly to ebullition, the boiling is allowed to subside, and the saccharine liquid is then immediately added, drop by drop, from another test-tube in which it has been already kept hot for the purpose.

In this way the hot saccharine liquid, flowing down the inclined sides of the test-tube, mingles gently with the surface layer of the copper solution; and when reaction takes place, it is indicated by a thin yellow or orange-colored ring at the surface of the mixture, which contrasts distinctly with the clear blue color of the remainder. Boiling must not be continued after the addition of the saccharine liquid; for in that case the minute quantity of copper precipitate, which is perfectly distinct so long as it remains at rest, is broken up and diffused by the mechanical agitation, and becomes quite imperceptible in the excess of the blue liquid.

The principal condition necessary for success, when testing by this method for sugar in minute quantity, is to have both liquids, at the moment of their admixture, as nearly as possible at the boiling-point without being disturbed by actual ebullition.

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In every case there should be two test-tubes, con-

taining equal quantities of the copper solution, placed side by side in a similar position. Both the fluids are to be treated in the same manner, excepting that the saccharine solution is added only to one of them—the other being used simply for comparison, in order to secure accuracy in the results. By this means the danger of mistake from spontaneous decomposition of the test-liquid is avoided.

If Fehling's test be used in the manner now described, with a solution of glucose made in the proportion of one part per 10,000, three drops of the saccharine liquid added to the hot mixture will cause the appearance of a faint yellowish ring on the surface of the copper solution; but it is very delicate, and requires for its production every possible care in the manipulations.

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If one cubic centimetre of water, containing $\frac{1}{100}$ of a grain of glucose, be placed in a narrow test-tube, and one drop of Fehling's solution added, the reaction on boiling is prompt and very strong, easily visible in all lights and from a considerable distance.

With a similar quantity of water containing $\frac{1}{1000}$ of a grain of glucose, and treated as before, the reaction is a little tardy in its appearance, but is perfectly distinct in character—most marked when viewed against a black ground. With weaker solutions, the reaction is less distinct, and soon becomes entirely imperceptible.

This accordingly is about the limit of the practical operation of Fehling's test. In delicate examinations the degree of concentration is always of some importance; since the same quantity of glucose, dissolved in double the quantity of water, will often fail to give a reaction, though easily detected in the more concentrated form.

For the purpose of reducing the liver tissue to a state of fine comminution in the shortest possible time, Prof. Dalton employs a machine of simple construction, but very effective in its operation, known as the "crimping machine." (This apparatus was exhibited, and its effectiveness shown.)

When a portion of the liver substance is passed between the rollers of this machine, it is crushed at once into a state of far finer comminution than could be effected by any cutting process with knife and scissors. The greater part is reduced to the condition of a loose granular debris, and the whole of it is so bruised and lacerated that the contact of alcohol or boiling water will instantly affect its entire mass. By this means from 1,500 to 2,000 grains of the liver tissue may easily be separated from the body of the living animal, thoroughly comminuted and immersed in alcohol or boiling water, within the space of ten seconds.

The mode of operating for the removal of liver tissue from the living animal was then described.

After remaining for ten minutes in the alcohol, the liver tissue is pounded and ground to a pulp in a porcelain mortar, the pulp thoroughly mixed with the same alcohol, and the mixture then slowly percolated in a displacement apparatus. The moist liver tissue remaining in the apparatus is pressed in a linen bag, and the expressed liquid filtered and added to that which has already passed through by percolation.

The alcoholic solution is then mixed with an equal volume of water, the turbid mixture clarified in a displacement apparatus, with two ounces of coarsely powdered animal charcoal, and evaporated to dryness over the water-bath. The dry residue is finally dissolved in fifty cubic centimetres of water, again decolorized with one ounce of finely powdered animal charcoal, and filtered. The perfectly clear and colorless watery solution is now examined for sugar, by placing one cubic centimetre of the liquid in a narrow test-tube, against a black ground, adding one drop of Fehling's solution, and raising the mixture to the boiling-point.

In order to determine the proportion of sugar present in the liver tissue, one cubic centimetre of Fehling's solution, diluted with water to five times its volume, is placed in a large-sized test-tube against a white ground, and raised to the boiling-point. While the ebullition continues, a measured quantity of the liver extract is slowly added, drop by drop, until all the copper oxide present has been precipitated, and the remaining liquid, when filtered, has no longer any blue color. The composition of Fehling's solution is such that, to accomplish this result with one cubic centimetre of the test-liquid, it requires exactly .077 of a grain of glucose, which quantity was accordingly present in the portion of liver extract employed. From this is calculated the amount of glucose in the whole fifty cubic centimetres of liver extract, representing a certain quantity of liver tissue; and thence the proportion of sugar per thousand parts in the liver tissue itself. The quantity of liver substance used in each experiment was ascertained by comparing the volume of the comminuted liver tissue and alcohol with that of another previously weighed portion of liver, treated in the same way and mixed with the same quantity of alcohol.

It is essential that the final watery solution be absolutely clear and colorless. Otherwise, in testing for small quantities of glucose, it is sometimes difficult to be certain whether a genuine reduction has taken place or not; and especially in using the volumetric method for quantitative determination, the extraneous matters present interfere with the test, and prevent our fixing the precise point at which all the copper of the test-liquid has been reduced.

I have now experimented in this manner upon twenty dogs. In four of the cases the method employed was that by boiling water; in the remaining sixteen cases, that by alcohol. The animals were examined four, eight, twelve, and twenty-four hours after feeding—the food consisting always of the fresh or cooked meat of the bullock's heart. The longest time which elapsed from the separation of the liver to its immersion in the alcohol or boiling water was thirteen seconds; the shortest time was six and one-quarter seconds. In every instance the final watery solution gave a decided and perfectly unmistakable sugar reaction; amply sufficient, in all cases in which it was attempted, to allow the quantitative determination of the glucose by the volumetric method. The proportion of glucose in 1.000 parts of the liver tissue was thus ascertained in one-half the cases. In the remainder its presence only was determined, without regard to actual quantity.

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There is no doubt that the quantity of glucose in the liver increases immediately after death; although, according to my experiments, this increase is not always so rapid as might be inferred from the general statements of some writers.

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Prof. Dalton draws the following conclusions:—

I. Sugar exists in the liver at the earliest period at which it is possible to examine the organ after its separation from the body of the living animal.

II. The average quantity of sugar existing in the liver at this time is at least two and a half parts per thousand.

III. The liver-sugar thus found does not belong to

the arterial blood with which the organ is supplied, but is a normal ingredient of the hepatic tissue.

Dr. Detmold inquired of Prof. Dalton how he accounted for the absence of sugar in the experiments of other men. Why did not Schiff find sugar? Were these physiologists as careful as they should have been?

Prof. Dalton replied that, undoubtedly, other experimenters took as much care as he did. At first he did not find sugar, but it was due to the quantity of liver tissue employed. About two hundred grains of liver tissue is the right quantity for experiments. The liver is thoroughly comminuted by the "crimping machine," and complete percolation follows—only sugar being taken out.

He also said that another great reason of his success was the employment of a large quantity of finely powdered animal charcoal, rendering a clear watery solution.

Dr. Gouverneur M. Smith remarked:—

I have listened, Mr. President, with great interest to the elaborate paper which has been presented to the Academy this evening by Dr. Dalton, on "Sugar Formation in the Liver." Interested more particularly in the study of practical medicine, I scarcely feel like acceding to the invitation to take part in the discussion of a question so purely physiological as the one which has just been offered. As it has so occurred, however, that my attention has been somewhat directed to the subject of glycogenesis and the formation of other proximate principles in the vegetable kingdom, and that I have laid some inferences before the Academy, in a paper on "Vegetable Assimilation," about two years and a half ago, and have lately called attention to the morbid production of sugar in the animal kingdom, as occurring in diabetes, I will, perhaps, venture to add a few words on this occasion, in the hope of turning the debate in a practical direction, but without diverging from the subject legitimately under discussion.

It seems to be proved by the experiments of Bernard, Flint, Lusk, and Dalton, that the liver possesses the property of generating saccharine material. This animal sugar can be traced from its source to the right side of the heart and to the lungs; but in these emunctories it for the most part disappears—in the blood of the general circulation it can scarcely be detected.

A question which is at the same time physiological and relevant to the one under discussion is, the use of this sugar, which is found in such a comparatively small portion of the vascular system? This point has not been alluded to this evening, nor do I know that physiologists have come to any definite conclusions concerning it. Until we are furnished with more light on this subject, we are incompetent to elucidate various morbid conditions which appear to me probably have a more or less dependence upon varying supplies of hepatic sugar.

Derangements of the glycogenic function of the liver have been almost entirely overlooked as causes of disease, though much attention has been bestowed upon the subject in reference to diabetes. In the various forms of functional and organic disorders of the liver, morbid conditions have been attributed to abnormal qualities of the biliary secretion, while they may have been at least partly due to a defective supply of saccharine material. If the liver during health is constantly generating sugar, such production is for some beneficent purpose. This function is as liable to interruption as are the other vital operations, and interruptions of physiological processes induce morbid sequelæ.

A *diminished* formation of sugar in the animal economy must be characterized by as remarkable abnormal phenomena as are those which mark a too bountiful generation of saccharine material. In diabetes we at times preclude the use of sugar and of proximate principles liable to conversion into that body, for the reason that the body is already surcharged with it. There is, doubtless, an opposite condition to this, in which the animal organism suffers from an insufficient supply of sugar; and such condition, so far as I am aware, has not attracted very special notice. Patients suffering under such natural deprivation can to a certain extent be relieved by artificial means, in the same manner as we can supply deficiencies of iron and of phosphorus. It is certainly reasonable to suppose that hepatic glycogenesis may under peculiar circumstances be either arrested or so modified that the supply of sugar in the economy may be greater or less than in health. The symptoms indicating such conditions must vary in degree according to the intensity either of the interruption or augmentation of the function.

Now, in order that we can more thoroughly appreciate the pathological states just alluded to, we must better comprehend the physiological uses of the glycogenic function of the liver.

It may not be inappropriate in this connection to review for a moment the uses of sugar in the vegetable kingdom. It is not proposed at this time to speak of the method of generating sugar and other proximate principles in full-growing plants, for this subject I have presented on a former occasion, and illustrated with chemical diagrams.* The subject can be most readily studied in examining the growth of embryotic plants.

The seeds of plants ordinarily contain a large amount of starch, which material is chiefly stored either in the cotyledons or in the surrounding tissues. In some seeds the fixed oils are found abundantly as a substitute for starch, and subserve a similar purpose; but on this point it is unnecessary to enlarge. When these seeds containing starch are placed under circumstances favoring germination, the starch is converted into dextrine, and then into sugar. The latter, being soluble, is readily absorbed by the cotyledons, radicles, and plumules of the embryo.

The sugar thus appropriated is disposed of by the plantlet in two ways: one part is converted into acetic acid, which in turn is transformed by oxidation into carbonic acid and water. An *evolution* of *heat* attends these processes of vital chemistry, and the young plant is thus early enabled to maintain a suitable degree of temperature. Another part of the sugar is converted into permanent tissue, either into cellulose ($C_{24}H_{20}O_{20}$), which is isomeric with sugar, or into some other structure composed of carbon, hydrogen, and oxygen.

This brief exposition must suffice to show the chief uses of sugar in the vegetable economy; and if the botanists have been correct in their interpretation of the phenomena characterizing nutrition and assimilation in plants, we are perhaps in this particular partially furnished with a guide to the study of the uses of sugar in the animal kingdom. It is scarcely necessary to add that while it is possible to follow certain parallels of similarity between the organic kingdoms of Nature, we should bear in mind that in some essential functions they are as diverse as they are congeneric in others.

A few words now in regard to the physiological uses of the glycogenic function of the liver, in the hope of throwing light upon some pathological and other conditions the causes of which have not as yet been satisfactorily explained.

In the paper on Diabetes which I read before this

* Bulletin of the N. Y. Acad. of Med., vol. iii.

Academy* in February last, a divergence was made from the subject, for a moment, in order to suggest a new function for the liver during lactation. A repetition of the general view then expressed may not be inappropriate on this occasion. After citing some instances of the increased production of hepatic sugar induced by certain reflex influences, the following theory was advanced:—

It is well known that sugar occurs in milk in the largest proportion of any of the organic lacteal proximate principles. It was suggested that this sugar was not formed *de novo* by the breasts, as has been contended by physiologists, but was elaborated by the liver, and simply separated from the blood and appropriated by the breasts as *lactose*, possibly after having undergone a slight transition. To obtain the necessary quantity of saccharine material, the glucæmia must be greater, however, than ordinarily occurs. Such increased glucæmia was thus accounted for: The *mammary irritation* accompanying the latter part of utero-gestation and during lactation (and even uterine irritation occasionally) could initiate an impression which was conveyed to the brain and thence reflected to the liver, inducing an augmented generation of sugar. This increased influx of sugar into the circulation, which under morbid circumstances would be chiefly eliminated from the blood by the kidneys, as in diabetes, is in this instance mainly appropriated by the breasts and made subservient to the nourishment of the nursing child. Simon years ago noted that milk was richer in sugar early during lactation than at later periods. This phenomenon can now, perhaps, thus be explained: The breasts when about to assume activity, and during the first few months of lactation, are in a condition better calculated to excite the peculiar erethism or sympathy referred to, than at a later time when the secretion is fully established, and when the mammæ partake more of the character of those glands whose functions are permanent.

Without repeating other details, it is only necessary to say, that in order to test the truth of my supposition, an analysis was made for me of the blood and urine of a healthy nursing woman. The blood was found to contain sugar; the urine was free from this principle. While the theory appeared to be both plausible and probable, this single analysis was insufficiently corroborative to assure me that the theory was founded on fact; at the same time other circumstances which were detailed seemed additionally conclusive. A few days after reading the paper I met with a statement, which was subsequently offered here, which appeared to substantiate the views before expressed. M. Biot had frequently noted a concurrence of transient glycosuria and lactation, but, so far as I am aware, had not accounted for any such coincidence further than that there appeared to be a connection between the phenomena.

With the theory before advanced, it now seems easy to explain the relationship. Nature provides such a liberal amount of sugar during lactation, that more is generated by the liver than is required by the breasts, and a part is eliminated by the kidneys, as in morbid conditions.

Such appears to be at least one use for the glycogenic function of the liver. It remains to consider the use of the function, as it is being ordinarily and constantly performed.

Sugar can be readily traced from the liver to the right side of the heart and to the lungs; in the blood of the general circulation its amount, as physiologists assure us, is quite infinitesimal. Is this sugar destroyed in the lungs and eliminated as carbonic acid and water, —an *evolution* of *heat* attending the metamorphosis? Such disposition of it in the animal economy would in some respects correspond with that recognized as occurring in the vegetable kingdom, though the process is not identical. In fully developed plants carbonic acid, whether derived from the air, soil, transformation of sugar, or otherwise, is for the most part doubtless retained and decomposed, to procure carbon and liberate oxygen; but the plantlet growing from the seed destroys the sugar and evolves a small amount of carbonic acid.

If sugar is disposed of in the lungs after the manner indicated, we have a partial explanation of the method of maintaining animal heat. The temperature of the centric parts of the body is somewhat higher than that of the peripheric portions, and such fact is perhaps thus to be accounted for.

It has occurred to me that there may be another way in which the sugar may be made use of in the economy. Is not a part only disposed of in the manner indicated, and is not another portion converted into some other material, some *tertium quid* which the physiologists have not recognized? This unknown principle may pass on into the blood of the general circulation, and in its various coursings be either broken up and evolved through the skin as carbonic acid and water, with the evolution of heat, and thus aid in maintaining the heat throughout the body, while another portion may be converted into tissues composed of carbon, hydrogen, and oxygen.

Dextrine in plantlets is the intermediate material between starch, out of which it is formed, and the sugar which is recognized as being finally destroyed and disposed of as before described. Sugar in the animal economy may be regarded in a somewhat analogous view, a part of it being intermediate between the material out of which it is formed in the liver, and some substance into which it is converted in the lungs, to be finally disposed of in the blood of the general circulation.

It appears to me, Mr. President, that the conclusions herewith given respecting the several uses of hepatic glycogenesis are legitimately drawn from the scientific premises which at present are in our possession.

I have purposely omitted all allusion to the formation of sugar in the economy otherwise than in the liver.

A final question of interest in this connection remains to be considered, viz.: what morbid phenomena characterize derangements of the function we have been considering? To the production of sugar occurring in diabetes no particular allusion will be made, as this subject has so recently occupied the attention of the Academy at two of its sessions. The phenomena accompanying melituria are so remarkable that they can readily be recognized. There are doubtless various abnormal conditions depending upon deviations from the normal production of sugar. Some such conditions may have been traced to these causes, while others have probably never been thus attributed.

In various functional and organic diseases of the liver, if the biliary secretion is impaired, it is reasonable to suppose that there is often a concomitant derangement of the glycogenic function. The biliary and the glycogenic functions may both be disturbed in the same individual, or again it may happen that one function may be deranged while the other is not interfered with.

Assuming the uses of sugar in the economy are such as have here been given, it may be legitimately inferred that if the glycogenesis were diminished or

* Medical Record, March 15th, 1871.

arrested, patients should have a diminished temperature and should emaciate. Now, in persons suffering from various chronic affections of the liver, and even of other viscera, the liver being secondarily involved, we find both these conditions. Even in confirmed diabetes, where there is a surplus of sugar, the same may occur, for the sugar is chiefly excreted through the kidneys, the deranged system not appropriating enough to maintain a normal and uniform temperature, and to prevent emaciation. There are many persons who are not confirmed invalids, but who are dyspeptics; in such the continual sensations of chilliness and the loss of flesh may be partially attributable to a failure on the part of the liver to produce sugar. In various disorders in which there may be a sympathetic or secondary disturbance of the liver, we may trace similar symptoms to the same cause. And again, an ordinary lean physique may sometimes indicate a diminished glycogenic function, and not simply a defective power of assimilation.

I have been led to believe that there may be an *increased* glycogenesis without a necessary concurrence of diabetes. Can we not in this way at times account for *obesity?* May it not happen that sugar may be morbidly generated and become chiefly assimilated as fat, and consequently not be excreted by the kidneys? Such view seems to be both plausible and probably true. We occasionally observe a transient melituria occurring in obese persons, the sugar being generated more generously than can at all seasons be assimilated. These cases either correct themselves, so to speak, or can readily be relieved by dietetic means. Occasionally, however, the assimilative powers no longer can appropriate the excessive saccharine material, and the patient emaciates and falls into confirmed diabetes. I have met with one such instance in a person of full habit.

On a former occasion it was my aim to show the relationships which existed between certain nervous conditions and increased hepatic glycogenesis. There may be opposite conditions, in which the nervous system is so prostrated that it is unable, either temporarily or persistently, to stimulate even the normal amount of sugar formation; but time forbids an enlargement on this point.

Thus far allusion has only been made to baneful effects attributable to differences in the *quantity* of sugar generated by the liver. There may be variations in the *quality* of the glycogenic function which occasion unfavorable sequelæ. Either an abnormal form of sugar may be elaborated, or some material which is not sugar, and though allied to it in character, is a morbid product, and fails to supply the economy with a principle susceptible of being utilized in a healthful manner. The function is not arrested, but perverted.

There is another manner in which the saccharine material may possibly become partially noxious. It is well known that sugar, when artificially acted upon by ferments, undergoes a peculiar metamorphosis. It is within the range of possibility that sugar, when generated and carried into the blood when the system is suffering under various morbid conditions, may be transformed into principles which may either prove inimical, or at least may be unsuited to replace sugar in the economy.

I have ventured, Mr. President, to offer these few thoughts as they have occurred to me from time to time in considering the subject which at present is under discussion. Several relevant topics, both physiological and pathological in their nature, have been brought forward this evening, which require further elucidation. It remains for us to give to these further study.

In answer to Dr. Detmold, whether grape sugar gives the same reaction as glucose, Prof. Dalton replied in the affirmative.

The President asked how the different results were accounted for in his experiments upon dogs, the time consumed in taking out the liver being the same.

Prof. Dalton stated that it was probably due to individual peculiarities and different food.

In reply to the President, whether the presence of sugar in the animal economy was a physiological change or a morbid one, Prof. Dalton remarked that he only intended to state the fact that sugar could be found in the liver at any period of life.

Dr. J. C. Peters:—It is apparently evident, from the very accurate experiments of Dr. Dalton, that sugar is formed in the liver during life, and is not merely conveyed there by the portal system.

But we know that all or most of the sugar which has been ingested, or which has been formed from amylaceous substances in the mouth, and by the saliva which has been swallowed down into the stomach, is absorbed by the gastric-portal blood-vessels, and thus conveyed to the liver.

Again, pancreatic juice, or the so-called abdominal saliva, possesses in a remarkable degree the power of converting starch into dextrine and grape-sugar, and thus aids in the metamorphosis of starch which has passed from the stomach into the duodenum and escaped the action of the saliva.

Finally, the strongly alkaline intestinal juice also certainly converts starch into sugar; although some unaltered starch and all the sugar which has been formed in the small intestines are absorbed by the portal blood-vessels of the lesser bowels and conveyed to the liver.

Hence, much sugar and some incompletely altered starch reach the liver from the stomach and bowels. As arterial blood does not normally contain any amyloid substance, starch must be completely converted into sugar in the liver; and if this does not take place, we may have the occurrence of amyloid degeneration of the liver and other organs.

We know that the hepatic nucleated cells, besides secreting bile, also assimilate from the portal blood and deliver over a peculiar substance which is not discharged by the bile ducts, but enters the blood through the hepatic veins. This substance is not albuminoid, but *amyloid*, forming an animal starch closely resembling the amylaceous substances developed so abundantly in the vegetable kingdom. Claude Bernard called this substance—which he thought was formed in the liver, but which may in part be absorbed from the gastro-intestinal mucous membrane—*glycogen*, because it yields sugar when mixed with ferments.

Minute granules of this glycogen are normally formed in the hepatic cells, their atomic composition being identical with that of starch, dextrine, and grape-sugar; and when dissolved in water, they, like dextrine, are immediately transformed into grape-sugar.

There are many other facts which go to prove that glycogen and sugar are conveyed to the liver, rather than formed in it. Thus, in fully-fed animals, especially after a meal containing starch, the quantity of sugar in the portal, systemic, venous, and arterial blood is increased. More sugar is also certainly obtainable from the livers of herbivora than from those of carnivorous animals, and still more from those of herbivorous animals recently fed on amylaceous food.

But glycogen continues to be formed in the livers of actually starved animals, and in those fed for a month or more exclusively on flesh; but this does not prove that sugar is absolutely formed in the liver; for small quantities of amyloid matter are always found in flesh, as well as inosite, or muscle-sugar.

Again, it is supposed by some physiologists that the hepatic cells have the power of decomposing the neutral fats of the food into glycerine or fat-sugar, and into the fatty acids, and that this glycerine is the source of the liver-glycogen.

By other authors, even the albuminoid substances are supposed to be decomposed in the hepatic cells and other parts; for the continuous formation of sugar in the eggs of birds during incubation shows that glycogen may be formed independently of amylaceous food, and its origin from albuminoid matter is thus rendered probable.

It is believed by some that the glycogen found so abundantly in the muscles of the embryo is not obtained from the milk-sugar of the mother, but that it and the inosite formed in the muscles after birth are also derived from the decomposition of albuminoid substances into glycogen. It is also asserted as more than probable, that both glycogen and tannin are formed in the liver by the splitting up of albumen. It is further stated by Haughton that albumen is resolvable into glycogen and urea, a change which is supposed to account for the origin of the sugar formed in the system in diabetes—at least in those cases in which no starch or sugar is partaken of in the food.

Dr. Dalton agrees with the best physiologists in the assumption that glycogen and sugar are absolutely formed in the liver; but it is very important for the practical physician to know that much of these substances may be conveyed to the hepatic tissue, not only from the stomach and bowels, but also from the muscles and system at large; and it is equally important for us to know how albumen and fat may be split up into glycogen, sugar, and other nutritive or excretive substances.

In the treatment of diabetes we may cut off starch and sugar, but we have also to prevent albumen and fat from being converted into glycogen and sugar.

The President announced that Dr. Stephen Smith would read a paper, July 6th, on "Fracture and Dislocation of the Odontoid Process."

The Academy then adjourned.

[*Official.*]

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 12, 1871.

Dr. A. L. Loomis, President, in the Chair.

Dr. Finnell exhibited portions of the intestine and fragments of the liver removed from a male patient, aged 30. A short time ago he fell through a hatchway, a distance of thirty feet, sustaining injuries of the abdomen. He was taken to the Park Hospital, complaining of distress across his umbilical region. After remaining in the hospital for a month, he was well enough to leave, but an attack of acute rheumatism of the wrists compelled him to be transferred to the medical division of St. Vincent's Hospital. Two weeks after his admission into the latter institution, he died rather suddenly of peritonitis.

At the autopsy the peritonæum was the seat of intense inflammation caused by a rupture of one of the intestines and the escape of its contents. There were also extensive adhesions of the intestines to each other, and also considerable pus in the peritonæal cavity. The point of interest centred in the question as to whether the peritonitis was latent during the six weeks that elapsed from the injury, or was caused by a rupture of adhesions formed immediately after the accident. He was inclined to believe that the latter was the case.

Dr. Janeway had seen cysts which had at first formed as a protection and limitation to the peritonitis, after a time rupture, causing a secondary attack which proved fatal.

POISONING BY OXALIC ACID.

Dr. Finnell also presented portions of the intestinal tract removed from a female, aged thirty-seven, who had accidentally poisoned herself by taking oxalic acid instead of Epsom salts. An ounce of the poison was probably swallowed. The mistake was discovered at once, Dr. Finnell was sent for; and in the course of ten minutes he was by her side. Rancid lamp-oil and chalk were at once administered, but very little if any of either was retained. The symptoms progressed, however, and at the end of ten hours she died. At first she complained of a great deal of burning pain at the pit of her stomach, also in the genital organs. She passed no water during the whole ten hours. Two hours after the accident the pulsation of the radials disappeared. She was for the greater part of the time able to walk about the room until towards the middle of the day, when she complained of numbness from the shoulders to the tips of the fingers. She was conscious to within a few moments of her death, occupying herself in pulling from her throat strings of ropy mucus. The autopsy was made six hours after death. The whole intestinal tract was very much reddened, more so than the stomach itself.

GRANULAR KIDNEYS.

He also exhibited a pair of granular kidneys removed from an Englishman, twenty-four years of age, who had suffered, while in London two years ago, with acute nephritis, and who, after coming to this country, and passing through the usual symptoms of Bright's kidney, was finally attacked with convulsions and died. Towards the close of his life he had forty convulsive seizures within three days. Chloroform kept them in complete abeyance, and the patient was under its influence for twenty-four hours at a time. He died comatose.

ASPERGILLUS GLAUCUS.

Dr. H. Knapp presented a fine specimen of *Aspergillus glaucus*, and exhibited the same under the microscope. It was removed from a patient who, after suffering for a long time from aural catarrh with its attendant deafness, developed a whitish, mottled, felt-like deposit in the aural canals and tympanums of both ears. Under the microscope this deposit exhibited the usual characteristic appearance of the fungus. He presented the specimen on account of its rarity, it being only the second one of its kind (*vide* Med. Record, vol. iv., p. 452) which he has seen here in seventeen hundred cases. In answer to the question as to treatment, he stated that it was very simple, the principal condition being to syringe the ear with plenty of water. Along with this he used nitrate of silver applications.

THROMBOSIS.

Dr. Janeway exhibited a specimen of thrombosis of the right heart, taken from a patient aged 21, who died at Bellevue Hospital. He had been suffering for several months with phthisis, and gave physical signs of cavities, localized bronchitis, etc. At the autopsy the principal lesions found were in the lungs and heart. The latter organ showed its valves and walls normal; but in the right ventricle, along its septum and along its lower border, imprisoned between the trabeculæ, were numerous small white thrombi, some soft in the centre, some round; others projecting and in the form of a wedge. The lungs presented cavities in their apices,

dilated bronchi, localized pneumonias, and fibrous nodules; in one of the pulmonary arteries, in the lower lobe of the right lung, there was a plug of a wedge shape, in appearance exactly like that found in the heart. The patient died of exhaustion.

CARCINOMA OF PYLORUS. THROMBOSIS OF MIDDLE CEREBRAL ARTERY. PARTIAL DESTRUCTION OF VISION, ETC.

DR. FLINT exhibited a specimen of cancer of the pylorus, removed from a German aged 57, who was admitted into Bellevue Hospital Feb. 17, 1871. The patient had a well-defined tumor in the neighborhood of the pyloric orifice of the stomach. This tumor was movable, and over it was heard, by Dr. McBride, senior assistant at Bellevue, a distinct double murmur. Dr. Flint was specially interested in the specimen because of a similar one which had been previously presented to the Society, where the double murmur existed, and aneurism was diagnosticated. Another point in the case which looked towards aneurism was the existence of a good deal of pain of a lancinating character; vomiting was also a very prominent symptom. The patient was extremely feeble, and presented the well-marked straw complexion which is somewhat characteristic of cancer. During his stay in the Hospital an event occurred of considerable interest, independent of the other symptoms. On the 9th of March, while getting out of bed for some purpose, he was suddenly seized with complete blindness, and paralysis of the right upper extremity. At first it was complete, but the day following he commenced to recover the use of the right extremity, and progressively improved. The improvement was considerable before his death. The patient was so debilitated that it seems somewhat uncertain whether or not there existed a partial paralysis of the left side, or a simple weakness. He improved, as regards his vision, progressively but slowly, but remained with vision very much affected up to the time of his death. He died of exhaustion.

The autopsy was made by Dr. Janeway, who furnishes the following account of lesions:—

Brain and Membranes.—A firm white clot blocks up the middle cerebral artery near its origin; on the left side and at each extremity is a red thrombus; no marked disease of arterial coats at this point.

The posterior lobe of left side is half the size of the other, of a paler color; its convolutions narrowed; the gray matter and white diminished in size, and the whole patch, one and a half inches in extent, remarkably firm, much more so than the rest of the brain-tissue. On the right side in the posterior lobe there is a small patch, on the convexity, of softened brain-tissue, white and semi-diffluent. In the centre of this is a small artery plugged by a clot. The other vessels are normal, and the posterior cerebral of the left side was carefully examined without discovery of lesion.

Heart.—Normal in size, some evidences of fatty degeneration of walls, in the form of whitish spots in muscular fibre; valves normal, and no thrombus or vegetation present.

Lungs.—Nothing special found.

Liver.—A little below the usual size, otherwise normal.

Spleen.—Normal.

Stomach.—At the pyloric extremity is a firm tumor involving almost the whole of it. Dimensions of tumor, superficially, four inches by four. It has everted thickened borders, and an irregular surface depressed at numerous points, and on it were gangrenous processes here and there. The stomach at this point is three or four times its usual thickness. A section shows all the coats involved of a grayish-white color, firmly bound together, and from one-quarter to one-third of an inch thick. No whitish pulp can be scraped from the surface of section, but in a few places a colloid matter is perceptible. The peritoneal coat in most places seems uninvolved. The duodenum and pancreas were closely attached to the stomach at the point of disease. The stomach beyond the disease, towards cardiac orifice, presents no special evidence of disease, and its muscular coat is not thickened. The disease stops abruptly at pylorus.

Intestines.—Appear normal.

PLEURISY ASSOCIATED WITH ANEURISM. ALMOST A NATURAL CURE OF THE LATTER.

Jennie Mason, 28, Domestic. Admitted March 21st, 1871. Mother died of consumption. Patient was perfectly well up to three years ago. Since that time has complained of shortness of breath, husky voice, cough with muco-purulent expectoration, several attacks of hemoptysis, pains in left chest and shoulder. Three months ago had thrombosis of right leg. On admission complains of great pain in the left side—axillary region. Speaks in a whisper. Absence of vocal fremitus on left side below fourth rib in front. Flatness in same situation. Absence of respiratory sounds in that part. Crepitant râle and bronchial breathing in left axillary region; broncho-vesicular respiration above fourth rib in front, and same in infra-scapular region. At lower portion of scapular region bronchial breathing.

March 29th.—Coughed up suddenly eight or ten ounces of bright-red blood. After this she gradually sank and died, 2:15 A.M., March 30th.

Autopsy, March 31st.—Female exterior well developed. Bubo scar on right groin. Circular white cicatrices of skin of chest and legs. Left side much larger than right.

Brain.—Normal.

Lungs.—Left pleura nearly filled with sero-purulent fluid. The left lung adherent to the chest. Wall, from first to fourth rib anteriorly, sloping back to sixth in axilla. The lower lobe was attached to the eighth rib—axilla. A space was left between the two lobes and over apex, each admitting two fingers. A space above and behind was left for serum.

Upper lobe pneumonic. Lower bronchi somewhat dilated, and contain blood. Lung-tissue pneumonic and partly broken down.

Heart was displaced by effusion, laterally. Apex at fifth rib, right side of sternum. Right auricle beneath first rib. The line of left pleura was at right sternal border. Slight lymph and serum in pericardium. Valves and walls normal.

Aortic aneurism. A moderate amount of endo-arteritis in arch. A small oval opening at posterior aspect of the descending arch leads to an aneurismal sac, which is of the size of a small orange, situated against the posterior and upper aspect of the left upper lobe. Below it rests on the left bronchus. This bronchus shows, on its upper wall, a clot protruding through an ulcerated space one-half inch in diameter. The clot and the protrusion of the wall inwards at this place produced almost complete obstruction of the bronchus. The bronchus below contained clotted blood. The aneurismal sac is filled with firm laminated fibrine.

Abdomen.—The diaphragm protrudes, arched towards abdomen as low as the point of junction of eighth and ninth cartilages. The left lobe of the liver is pushed downwards and towards right.

The spleen is pushed downwards and forwards.

Liver.—Size about normal. A small tight adhesion on right lobe. Several cicatrices on surface of right and

left lobes, and a small gummy tumor in right lobe in one of the cicatrices.

Spleen.—Adherent and thickened capsule. Pulp semi-diffluent.

Kidneys appear normal in size without any marked change.

Uterus.—Old adhesions bind the uterus posteriorly to the rectum. Uterus is retroverted. The tubes convoluted, closed by adhesions at their fimbriated extremities, dilated at their outer part, and contain a fluid with blood pigment.

Dr. Flint remarked that the occurrence of an aneurism in a girl of that age was of much interest, as was likewise the almost complete cure of the aneurism by its being filled with dense laminated fibrine. A question came up in regard to the influence which the long-continued pressure of the effusion in the pleura might have had upon the contents of the said aneurism by inviting a solidification.

Dr. Van Geison was much interested in the existence of a double murmur in the case of cancer of the pylorus. As far as he had been able to ascertain, no mention was made of it in medical literature, although Stokes had hinted as to its possibility. The question in his mind was how was it produced?

Dr. Flint could understand how a systolic murmur could be produced in an artery by the pressure of a tumor upon it. But in regard to the diastolic murmur he was somewhat in doubt. He thought it might possibly be produced by a recoil in the artery after the manner of the dichrotic pulse. In any event it was an important fact, and deserved to be placed on record.

Dr. Loomis did not see why the latter explanation could not be accepted if there was pressure enough.

Dr. Van Geison thought that from the history of the case the existence of the double murmur might lead us to infer that the tumor was a large one, and firmly adherent to adjacent parts.

Dr. Loomis thought that the cure of the aneurism in Dr. Flint's second case might be due either to pressure upon the artery supplying it, or directly upon the tumor itself.

Dr. Rogers, in connection with the existence of aneurism at an early age, referred to a specimen which he had presented a year ago, removed from a young man aged 28. The patient had had syphilis.

Dr. Janeway stated that aneurism occurred not unfrequently quite early in persons who had suffered from syphilis. The latter was one of the common causes of chronic endo-arteritis, the forerunner of aneurism.

(To be continued.)

Correspondence.

THE VARIABILITY IN THE TYPES OF DISEASES—A LETTER TO DR. NOTT.

To the Editor of the Medical Record.

Sir—I beg to call, through the Record, Dr. Nott's attention to what I think a few errors in his paper published in your issue of July 1st.

In his strictures on Dr. Bennett, while not admitting what that gentleman says about inflammation, he says: "In certain cases of acute inflammation, in subjects of full habit where the heart's action is *above* its normal standard, I feel assured that bloodletting and the antiphlogistic regimen generally will often moderate its course and *limit its extent.*" Now, here Dr. Nott certainly shows himself at variance with the weight of modern authority in regard to the *physiology* of the diseased condition in question, and a striking tendency to cling to the teachings of those old antiphlogistic days that called *commotion* force. He speaks of the heart's action being *above* its normal standard. Just here I would refer him to page 350, vol. I, of Flint's Physiology. Does not the heart rather act with an increased *frequency* to make up for lost *power?* If, in the beginning of acute disease—say pneumonia—when a portion of lung is temporarily dead, and the right heart in a state of repletion as a consequence, if the strength of the patient would permit I am sure *Dr. Bennett himself* would bleed; but *on mechanical principles.* Would not a moderate loss of blood, under such circumstances, *tone* the heart?

While on this subject I would ask, is it not highly probable that Verat Vir., in proper doses, in this condition, acts as a *heart-tonic*, by diminishing the *frequency* of the beats and increasing their *power?*

If it be a cardiac *depressant*, and the heart, in acute disease, as we are taught, acts with an augmented *frequency* to make up for lost *power*, then it seems to me it cannot be a proper remedy.

I do not know what Dr. Nott means by "sthenic" disease. I believe, with Chambers, that "Disease is, in all cases, not *a positive existence*, but a *negative;* not a new *excess of action*, but a *deficiency;* not *a manifestation of life, but partial death:* and therefore that *the business of the physician is*, directly or indirectly, not to *take away* material, but *to add;* not *to diminish function*, but *to give it play;* not *to weaken life*, but *to renew life*": and with Skey, in the preface to his charming little brochure on Hysteria, where he says: "A weak condition of the animal body is intelligible enough, but an abnormal condition warranting a reduction of vital power by artificial agency, I cannot understand."

Nor does Dr. Nott appear at all in accord with one of our best authors in his own specialty, in regard to inflammation. I refer to Prof. Thomas of New York; and I feel sure that the views he expresses on p. 194, 2d ed. of his very valuable work on Diseases of Women, will be endorsed by almost every gynecologist of his city.

I beg, too, to refer Dr. Nott particularly to the close of Dr. Gall's address before the British Medical Association in 1868. He holds that "perverted functions in disease, however exaggerated, are due to *failure* and not to excess of the vital powers."

On p. 194, 4th par., 2d column of Record, I am sure Dr. Bennett himself would endorse what Dr. Nott says. If pneumonia is complicated with typhoid fever, of course "ammonia and brandy" might be "lovingly" called for; and if with malarial fever, quinine should be freely used. What Dr. Nott calls these "types of pneumonia," I think would be more properly called *pneumonia complicated with typhoid and malarial fevers.*

In conclusion, I would ask Dr. Nott if the "high bilious fevers" he treated thirty or forty years ago would have lasted nine, fourteen, and twenty days, if they had had the *abortive* treatment, so strongly enforced by Flint and Maclean, rather than the antiphlogistic.

When the teachings of the ancients do not conflict with the revelations of modern medicine, let us cordially accept them; but their heresies we must reject. I would not throw discredit upon the sages of antiquity—they performed their part in advancing science—but who will not admit that where they walked in darkness, we now have light to guide us?

I write not in a spirit of controversy—indeed I would not attempt one with Dr. Nott, so learned and justly famed, and of whom the South are so proud—but I

simply *hope* to induce him to reflect a little more on some points which, I am inclined to think, have not made the right impress on his mind.

Wm. A. B. Norcom, M.D.

Edenton, N. C., July 8, 1871.

A REMEDY FOR HÆMOPTYSIS.

To the Editor of the Medical Record.

Sir—I would like to call the attention of the profession to a method of treatment of hæmoptysis, which, while most simple and efficacious, I have not seen described by any, viz., the throwing of the atomized vapor of a saturated solution of gallic acid directly into the mouth and throat. I have repeatedly found the most gratifying success follow at once, even in cases of profuse hæmorrhage. Unlike other styptics thus administered, it quiets the spasmodic cough, which seems the direct result of the presence of the blood, requires but a moment to prepare, and, aside from its efficacy, it inspires immediately the confidence of the patient. For about two years, I have adopted this method, and have been surprised that no similar experience has found its way into the medical journals. My habit has been to have an atomizer and bottle of gallic acid always at hand, and when summoned hastily, to mix the acid in a tumbler of cold water, and use even without waiting for the excess of acid to subside. It has proved successful in several cases where the blood was streaming from the mouth with every expiration. E. Holden, M.D.

Newark, N. J.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from July 4, 1871, to July 18, 1871, inclusive.

Wirtz, H. R., Surgeon.—By S. O. 38, Headquarters Department of Arizona, so much of S. O. 22, from those Headquarters, as directs this officer to proceed to Camp Lowell, A. T., for duty, is revoked.

Ghiselen, J. S., Surgeon.—By S. O. 258, War Department, A. G. O., July 1, 1871, leave of absence extended six months.

McClellan, Ely, Assistant Surgeon.—By S. O. 261, War Department, A. G. O., July 5, 1871, relieved from duty in the Department of the Mo., to proceed to Philadelphia, Pa., and report by letter to the Surgeon-General.

Janeway, J. H., Assistant Surgeon.—By S. O. 120, Headquarters Department of the Mo., July 3, 1871, assigned to duty at Fort Hays, Kansas.

Happersett, J. C. G., Assistant Surgeon.—By S. O. 126, Headquarters Department of the Mo., July 13, 1871, assigned to duty at Fort Garland, C. T.

Woodhull, A. A., Assistant Surgeon.—By S. O. 272, War Department, A. G. O., July 13, 1871, leave of absence extended 11 days.

Gibson, Jos. R., Assistant Surgeon.—By S. O. 272, War Department, A. G. O., July 13, 1871, granted leave of absence for 30 days.

Buchanan, W. F., Assistant Surgeon.—By S. O. 143, Headquarters Department of the East, July 6, 1871, assigned to duty at Fort Hamilton, N. Y. H. Assignment suspended until further orders, by S. O. 149, Department of the East, July 13, 1871.

Azpell, T. F., Assistant Surgeon.—By S. O. 105, Department of Cal., June 17, 1871, to report in person to the Medical Director of the Department.

Fitzgerald, J. A., Assistant Surgeon.—By S. O. 121, Headquarters Department of the Mo., July 5, 1871, granted leave of absence for 30 days.

Styer, Chas., Assistant Surgeon.—By S. O. 72, District of New Mexico, June 23, 1871, to proceed to Fort Stanton, N. M., for duty at that post.

Delany, Alfred, Assistant Surgeon.—By S. O. 120, Headquarters Department of the Mo., July 3, 1871, to proceed to Sante Fé, N. M., and report to the Commanding Officer, District of New Mexico, for assignment to duty.

Hall, Jno. D., Assistant Surgeon.—By S. O. 152, Headquarters Department of Dakota, July 8, 1871, assigned to temporary duty at Cheyenne Agency, D. T.

Byrne, C. B., Assistant Surgeon.—By S. O. 93, Headquarters Department of the Columbia, June 29, 1871, upon being relieved at Camp Harney, to proceed to Camp Warner, Oreg., for duty at that post.

Reynolds, Frank, Assistant Surgeon.—By S. O. 93, C. S., Headquarters Department of the Columbia, upon being relieved at Fort Stevens, to proceed to Camp Harney, Oreg., for duty at that post.

Ewen, Clarence, Assistant Surgeon.—By S. O. 154, Headquarters Department of Dakota, July 11, 1871, relieved from attendance as witness before G. C. M., and directed to return to his post (Camp Baker, M. T.).

O'Donnoghue, F., Medical Storekeeper.—By S. O. 261, War Department, A. G. O., July 5, 1871, granted leave of absence for 60 days on surgeon's certificate of disability.

Mecuem, A. F., Surgeon.—Died at Pleasantville, Harford Co., Md., July 14, 1871.

New Instruments.

HENRY'S SCROTAL FORCEPS.

Dr. M. H. Henry, of this city, editor of the *American Journal of Syphilography and Dermatology*, publishes in the last number of his periodical the following description of an instrument for the amputation of the redundant scrotum in the treatment of varicocele:—

Fig. 1.

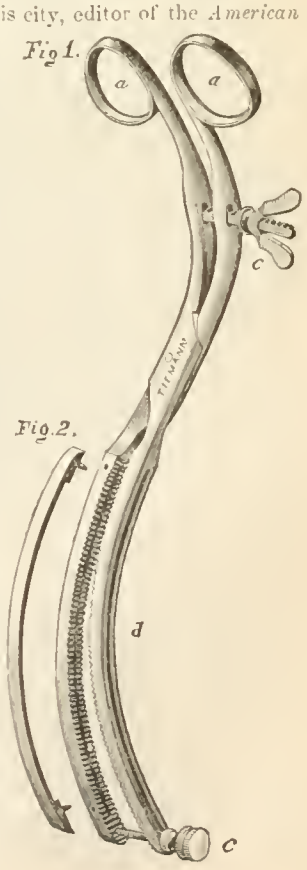

Fig. 2.

The main part of the instrument, Fig. 1, has two double curved blades, made of steel, ten inches long, sufficiently heavy to give strength, and admit of pressure without injury when used. The handles *a* are large enough to admit finger or thumb without cramping.

The lower half of the instrument below the joint is fenestrated in both blades; the coapting surfaces are evenly notched to prevent the tissues from slipping—affording, according to experience, a more secure hold on the soft parts with less pressure and less injury than smooth surfaces. The fenestra afford the surgeon the facility of in-

serting all his ligatures before dividing the parts, should he elect this method of bringing the edges together. The thickness of the upper blade from the line of insertion of the ligatures, leaving ample tissue to assist union, and if the incision be a clean one the equal pressure or tension will prevent, as far as any effort or care can control, ulceration through the stitches before union has taken place. The curve in the blades is made according to natural lines, which it is desirable to follow in removal of the scrotum.

The handles are curved so that, while they maintain a direct median line, they do not interfere or press on the genital parts; beside giving additional security and compactness to the whole. The screws in the handle and the end of the blades c give additional security during the operation without the aid of an assistant.

The extra blade, Fig. 2, is made of steel, nickel-plated, and is maintained in the right blade of the forceps by two small pins and the slight tension put on the spring of the metal. It is easily inserted with a little pressure; and removed as easily by inserting the nail or the handle of any instrument between the two blades and dislodging it.

When the operator prefers the glover's, or running stitch, the extra blade is used as a guide in the amputation of the parts. When this is accomplished, by displacing the blade, a free border is exposed—about the sixth of an inch in thickness—and in a minute or so the wound can be stitched perfectly without any inconvenience. The forceps are, of course, not removed until this is accomplished.

Medical Items and News.

Case of Poisoning from the Bite of a Rattlesnake.—James Herbert, a young man living at Point Pleasant, N. J., had a habit, when he saw a snake lying in his path, of catching it by the tail and cracking its head off. By mistake he "caught a Tartar" in the form of a young rattlesnake, and was bitten through the finger before he could accomplish his purpose. Dr. Robert Laird, of Squaw Village, N. J., saw him an hour afterward and found him in convulsions, finger and hand swollen, pulse intermitting, eyes glaring and bloodshot, teeth set. He immediately placed a tight ligature about the wrist, scarified and cauterized the wound, and applied a poultice of strong ammonia and tobacco. The patient, before the doctor's arrival, having taken half a pint of whiskey, he gave him a hypodermic injection of morphine. The convulsions still continuing he pried open his mouth and gave him gr. xx of hydrate of chloral every ten minutes; after taking the fifth dose the convulsions ceased, he sank into a deep sleep of several hours' duration, and afterward had no more of them. Three days afterwards he was sitting up convalescent.

Cundurango, the so-called South American specific for cancer, is still a popular sensation. It is to be hoped that all the papers say of its wonderful virtues, and all that Dr. Bliss, of Washington, claims for it, are true. There is, however, a little too much of the newspaper element in its notoriety to satisfy the minds of scientific men. Dr. Bliss, its principal advocate, has already become a martyr to the opinions of his skeptical professional brethren in Washington and elsewhere, but is determined to vindicate himself, and to prove the value of the remedy—at least so the daily papers inform us. In reply to an application for some of the specific, we learn also from a daily paper that he says: "I receive but a small quantity at a time, and it being my purpose to treat a few cases here, where they can be under my own observation, it will be impossible for me to send any of it away. The remedy, as well as myself, having been attacked, I desire to demonstrate to the public what it will do, which necessitates the above course."

Further on in the same newspaper paragraph he informs all interested that he expects to receive by the 15th of August, at the furthest, a sufficient amount of the drug "to supply the profession or the public, as they may desire." Again, in the same paragraph, we have the following remarkable assertion:—

"From the statements of the physicians of Quito, and my own experience in its use, I am convinced that the 'cundurango' is quite as reliable as a specific in cancer, scrofula, and other blood diseases, as cinchona and its alkaloid have proved to be in zymotic diseases."

The profession throughout the country will doubtless be anxious to verify the above when the supply of the remedy shall be ample, and when Dr. Bliss has vindicated himself before the public by the treatment of such cases as he may now have under his own observation. The profession will be patient.

The Drug Clerk Law.—The examinations by the Board appointed in accordance with Chapter 202 of the Laws of 1871 have commenced. The subjects for examination are—Chemistry, Poisons and their Antidotes, Practical Pharmacy and Officinal Botany, Materia Medica, Adulterations of Drugs, and Prescriptions. The days of examination are fixed for Tuesdays and Thursdays, from 10 A. M. to 3 P.M. Dr. R. Odgen Doremus is the President of the Board. The office is at 72 Union Place.

The Epidemic which has been prevailing among the horses of this city and vicinity is one of cerebro-spinal meningitis. It has proved singularly intractable. Horsemen inform us that the disease spends its force upon mares; stallions and geldings being very seldom attacked.

New Publications.

Books Received.

Handy-Book of the Treatment of Women's and Children's Diseases, according to the Vienna Medical School, with Prescriptions. By Dr. Emil Dillnberger. Translated from the Second German Ed. by Pat. Nicol, M.B. Phila.: Lindsay & Blakiston. 1871.

A Manual of Midwifery: Including the Signs and Symptoms of Pregnancy, Obstetric Operations, Diseases of the Puerperal State, etc., etc. By Alfred Meadows, M.D., Lond. First American, from Second London Ed. Phila.: Lindsay & Blakiston. 1871.

The Physician's Prescription-Book: Containing List of Terms, Phrases, Contractions, etc., etc., to which is added a Key containing Prescriptions in an Unabbreviated Form, with a Literal Translation, etc., etc. By Jonathan Pereira, M.D. F.R.S. Fifteenth ed. Phila.: Lindsay & Blakiston. 1871.

Opium and the Opium Appetite: With Notices of Alcoholic Beverages, Cannabis Indica, Tobacco and Coca, and Tea and Coffee, in their Hygienic Aspects and Pathologic Relations. By Alonzo Calkins, M.D. Phil.: J. B. Lippincott & Co. 1871.

The Federal Government: Its Officers and their Duties. By Hon. Ransom H. Gillet. Woolworth, Ainsworth & Co., New York and Chicago. 1871.

Original Communications.

A CASE OF ACUTE ATROPHY OF THE LIVER, WITH REMARKS.

By W. M. CHAMBERLAIN, M.D.,

NEW YORK.

The following history is incomplete in many points connected with the scientific inquiries which it suggests. The extreme rarity of the disease and the peculiar circumstances of its invasion, prevented the early recognition of its essential nature. Thus, while the therapeutic indications were fairly met, the pathological elements were not fully appreciated until the autopsy had been made, and it was then too late to recover them.

Perhaps enough of interest remains to warrant publication. The reader, who may desire to pursue the subject, is referred to

Rokitansky; Path. Anatomy; Bd. iii.

Lebert; Ueber Icterus Typhoides; Virchow's Archiv, 1854.

Frerichs; Diseases of Liver. Sydenham Soc. Ed.

Bollinger; Deutsches Archiv für Klin. Med. Dec. 1868.

Kohts; Icterus bei Phosphorvergiftung. Deutsches Archiv fur Klin. Med., Dec. 1868;

and to the chapters of Budd, Niemeyer, and Murchison.

Mrs. C., a married lady, 22 years old, healthy and well developed, about 5 ft. 2 inches in height, weighing from 120 to 130 lbs., had reached the middle of the ninth month of her second pregnancy, without any special disturbance of her health.

Her previous confinement occurred during the progress of an attack of diphtheria, and was not under my observation; but it is said that for several weeks afterwards she suffered from an extremely irritable stomach, and for a long time rejected almost all the food which she took.

She lived in a cleanly and elevated portion of the city, in a well-appointed house, and no local or contiguous sources of disease were noted.

On Friday, June 23d, she took a considerable walk, and on Saturday was much occupied with her domestic affairs. On Sunday she began to suffer from a diarrhœa, with tenesmus, and on Monday the 26th I first saw her at 9 A.M.

The dejections were of a light drab color, contained no blood and but little mucus. They were neither large, frequent, nor very fluid; but the tenesmus was quite urgent. There was marked heat of the skin, acidity of the stomach, gastralgia, and thirst; pulse about 120. No notable error in diet, or anything which should have caused a catarrhal attack, was reported.

The urine was abundant and apparently normal; being carefully boiled and treated with a third of its bulk of strong nitric acid, no albumen was found. Slight effervescence, with ammoniacal odor and deepened color, indicated an excess of urates. Believing that the symptoms indicated a sympathetic irritation from pressure of the uterus on the lower bowel, she was advised to keep the recumbent position with hips raised on a pillow, to drink Vichy as an antacid and diluent, and a suppository of a quarter of a grain of morphine was placed in the rectum.

She was much relieved, and slept well on Monday night, and on Tuesday morning was comparatively comfortable; but the pulse remained high, and there had been three or four movements of the bowels, preserving the characters above named. The treatment was continued, and occasional five-grain doses of Dover's Powder were added. Having spoken to her of the possibility that labor might be hastened, I was not surprised on Wednesday morning at 8 to be informed that it had begun. Nothing appeared unusual when I first saw her on that day, except the pulse, which was 120, full and soft—and the temperature, which was 103°. On remarking this, her husband informed me that he had often counted her pulse at 85 when she was perfectly well and calm, and that it became rapid with every slight disturbance. Her pains increased in frequency, were not remarkable for force; but by 10 A.M. were attended with unusual suffering, and chloroform was employed, 15 or 20 drops at a time, at intervals from 10½ to 12. She was never entirely unconscious. At 12½, dilatation being complete and the head in the basin, the membranes were ruptured, and delivery followed with the third subsequent pain. Labor was thus comparatively brief, and unmarked by any complication. The child, a small male, not evidently premature, did not breathe well, and was allowed to remain attached to the undelivered placenta for fifteen minutes or more, while various methods were employed to stimulate his respiration. Finally the after-birth was delivered with but little hæmorrhage; the uterus contracted firmly; the patient was thoroughly bathed and changed.

The condition of the child continued so unsatisfactory that I remained for two hours in attendance on him. Then returning to the mother I found her very restless, complaining of pain in the bowels, with a hot skin and a pulse of 120. The uterus was small and firm, the flow moderate—the after-pains slight. Surprised at the return of a disease whose exciting cause had, as I thought, been removed, I directed a suppository (¼ grain of morphine) to be placed in the rectum, and the compound powder of ipecac. in five-grain doses once in three hours. At 8 P.M., finding her much relieved, I left her for the night, with orders that the powders should be continued; and if there should be much pain, the suppositories also employed. She had in the three preceding days used several of the latter, and knew their composition and their effect. During the afternoon there had been two rather free movements of the bowels, which seemed unusual, but presented the same appearance as those which preceded labor. There were three more considerable evacuations during the night. Fifteen grains of Dover's Powder were administered and four suppositories introduced, but the nurse asserts that two of them were immediately returned undissolved. Thus she retained 1½ grs. of powdered opium and ½ gr. of morphine—perhaps the equivalent of 4½ grs. of opium, between 8 P.M. and 4 A.M., being sleepless and in pain—which was referred principally to the rectum. I saw her at 7 A.M. Thursday. She was apparently semi-narcotized; the pupils equally and strongly contracted; respirations from 9–12 per minute; pulse 100; temperature 102°. Sleep was continuous, if undisturbed, but she would answer every question, however quietly spoken, and maintain indefinitely a perfectly rational conversation in well-chosen and clearly articulated words, with many little turns of wit and fancy; then she would sleep again, and when roused say that she was "very tired, but free from pain."

Diarrhœa appeared to be suspended; the bladder had been twice evacuated during the night; lochia scanty; uterus firm; no tympanitis or tenderness on pressure. It appeared as if she had taken a full dose of opium, much to her advantage; but as the last in-

stalment had been given three or more hours previously, its effects would probably soon begin to pass away. There was some nausea and much pruritus, particularly about the nose. She remained in this condition all day—the effect of the morphine just about as manifest at 4 P.M. as at 7 A.M., the nausea gradually increasing; two movements of the bowels only.

At 7 P.M. Drs. Livingston and Stephen Rogers saw her in consultation. No definite theory of the disease was established; an expectant attitude maintained; no apprehensions of a serious nature were felt by us. Coffee was given by the mouth, and $\frac{1}{60}$th of a grain of atropine hypodermically. It was believed that the diarrhœa and tenesmus were sufficiently controlled for the time, as but two or three evacuations had taken place through the day, and that the effect of the morphine would pass away during the night.

The lochia were very scanty; no urine had been passed since the early morning. It was therefore drawn by the catheter, and found to be scanty, feebly acid, and dark-colored. The mind remained perfectly clear; the pupils had returned to nearly normal size; somnolence was less marked, but nausea more urgent. An intense acidity of the stomach was complained of; the fluid vomited was very dark-colored, and grew more abundant and darker as the night went on, until it resembled clear and strong coffee, but contained no grumes or granular matter.

Sinapisms to the epigastrium—lime-water with milk, ice, and iced champagne and brandy, failed to prevent a return of intense retching about every two hours, and toward morning I gave her a few whiffs of chloroform as each paroxysm approached. This seemed to relieve her most.

On Friday morning there was well-marked icteric stain of the skin, sclerotic, and of the scanty urine; there was a sense of great prostration and oppression without any acute pain, the mind remaining clear and hopeful. In consultation the prognosis was thought to be very grave. As the day advanced, the pupils grew unnaturally wide open, the pulse accelerated and weakened; there was marked coolness of the surface; at 4 P.M. the temperature had fallen to 96½, the skin icteric, with dark mottling. Prompt and thorough stimulation by dry heat, friction, etc., had but temporary good effect. An ounce and a half of brandy was given in small instalments, and, by quelling the efforts at vomiting with chloroform, it was retained. Up to this time, questions were answered promptly, and generally correctly; but now paroxysms of maniacal excitement, with much jactitation, began, and grew constantly more severe. Nothing but chloroform exercised the least control over them. A few inspirations from an open handkerchief sufficed, and it was administered about every half-hour during the night. The vulva had been assiduously fomented through the whole day, but the lochia were absolutely suspended. The catheter brought but an ounce or two of dark urine. There had been occasional discharges per rectum through the day.

Dr. Jacobi was added to the council. The urine was again tested with heat and nitric acid, and now showed a moderate amount of albumen. Dr. Rogers reported, from the microscopic examination of a previous specimen, the presence of a few epithelial casts; and of the vomit, that it did not contain a single blood-corpuscle. It was sufficiently evident that some animal poison was disturbing all the centres of life. She had taken little or no food since the beginning of the attack. It was now quite sure that she would vomit whatever might be introduced by the mouth, and return whatever might be placed in the rectum.

There seemed to be small prospect of advantage from any form of medication. The abdomen and back were encircled with a large fomentation of Fol. Digitalis. covered with oiled silk. The jactitation was so incessant and extreme that this was removed after two hours, in the last of which there were two profuse and thin movements from the bowels, without any apparent effect upon the maniacal excitement. Chloroform was continued, being administered at intervals of half an hour through the night until morning, when mania was gradually replaced by coma.

Daylight showed intense icterus, with purplish patches on the neck; frequent regurgitations of black vomit occurred, the facial and laryngeal muscles successively became paralyzed, catalytic heat was developed, the surface was bathed in warm perspiration, the pulse was large through the morning, but became irregular in the afternoon; a slight convulsion occurred at 6 P.M., and she died at 8.

Autopsy at 2 P.M. Sunday, 18 hours after death, and 16 hours after the ice envelope. Examination of the abdomen only permitted. Present: Drs. Livingston, Rogers, Jacobi, Noeggerath, Pooley, and myself. Rigor mortis moderate; skin of a light orange color; abdominal fat very yellow; abdominal muscles of a dark red; cavity of the abdomen quite dry; peritoneal surfaces everywhere smooth and glistening; no lymph; no adhesions; large omentum beautifully spread over the intestines, in which there was a moderate amount of air. There had been no post-mortem purging, and there was no fluid in the large intestine.

There was more fluid and less air in the small intestine. The stomach was half filled with fluid, and capped by the liver, which had rounded itself backward beneath the diaphragm so as to be entirely out of sight. Removing the stomach, it was found to contain two or three pints of fluid like the vomit of the two preceding days—the same in the duodenum and jejunum. The internal coat of the stomach was free from disease—neither capillary injection nor softening.

The liver was of a lighter color than normal, its surface smooth, not wrinkled, its substance a little less firm than natural. It weighed 2 pounds 8 ounces avoirdupois, or 40 ounces. The weight of the body being about 120 pounds, that of the liver was as 1:48. [Bartholin gives the relative weight of healthy livers as 1:36, Haller, 1:25. Frerichs asserts that it may vary in healthy human subjects between 1:17 and 1:48, and Bidder & Schmidt find a variation in healthy animals of from 1:14 to 1:38.] On section, the cut surface was of a generally light color, the lobules not well defined, but the centre of each was marked by a blackish stain in the situation of the intra-lobular vessels. The conditions of firmness, color, etc., were nearly uniform throughout; but the whole organ was thin, and the left lobe particularly so. The spleen rather small, lobulated, firm, normal color. Mucous surface of intestines healthy, as far as examined. Uterus firm, globose, rising two inches above the crest of the pubes; cavity lined with a dark smegma, the surface beneath being quite smooth, the site of placental attachment hardly discernible. Broad ligament, ovaries, and bladder normal. Kidneys, normal size, firm, dark-colored; section showing the cortical substance well defined from the tubular, but the calyx of each Malpighian cone showed beneath its lining membrane a chocolate-colored extravasation, following up nearly to the cortical substance [identically described by La Roche as an occasional lesion of yellow fever].

In the left kidney a little catarrhal semipurulent fluid could be expressed from the tubes. From the microscopic examination of the liver Dr. Jacobi reports, "Hepatic cells much shrunken, enveloped and compressed

by young cells and connective tissue, and an excess of oil-globules." Dr. Rogers reports:—"Hepatic cells broken down, enveloped in oil-globules of various size, their nuclei wanting." Probably Dr. Rogers' section was from a portion further advanced in disease.

A certificate was rendered—"Death by Chokæmia and Uræmia from Acute Atrophy of the Liver."

We have here death after six days; with icterus, black vomit, coma, suppression of urine, and extravasations into liver and kidneys, with a distinctly febrile invasion. Thus the case is sufficiently assimilated to yellow fever to have passed unquestioned as a typical case of that disease if it had occurred in the course of an epidemic (vid. La Roche on Yellow Fever). Had the patient taken a poisonous dose of phosphorus there would have been essentially the same ante-mortem and post-mortem phenomena (according to Bollinger and Kohts. Vide Deutsches Archiv für Klinische Medicin, December, 1868). The same post-mortem appearances result from icterus rapidly developed in the course of typhus or scarlet fever, or pyæmia (Murchison and Budd on the Liver). Also from poison of serpents (Budd), and from an intense local malaria (vide report of four cases occurring all in one family and one house in Limerick, Ireland, in 1834, copied by Budd; and the epidemic of 1858 in the island of Martinique, mentioned by Murchison).

From the cases of acute atrophy of the liver detailed by Frerichs, it is distinguished by the slow approach of the cerebral disturbance, here confined to the last three days; while it is in most other respects quite similar, particularly in the microscopic elements of the liver. It is to be regretted that the existence of tyrosine and leucin was not suspected, and therefore not demonstrated.

The decrease in size of the liver does not appear to be strictly pathognomonic; as the liver of inanition after stricture of the œsophagus is considerably smaller (Frerichs). "It is a question, whether the condition of the liver in acute atrophy be the cause of all the formidable symptoms with which it is associated" (Murchison).

"The secretion of bile may be suppressed, and the secreting substance of the liver more or less disorganized, without any process of inflammation; these may result from powerful and depressing emotions, more frequently are produced by some poison, introduced from without or engendered by faulty digestion or assimilation" (Budd).

Frerichs has collected reports of 31 cases, of which 26 were under 30; 22 were females, and 11 were pregnant females, all of whom aborted in the course of the disease. Thus, youth, the female sex, and pregnancy are clearly predisposing causes, and abortion of pregnant females a nearly uniform consequence. Profuse uterine hemorrhage attended several cases. Similar observations are make by Scanzoni and Kiwisch and Lebert.

With regard to prognosis, Frerichs says it "almost invariably terminates in death." Murchison, "All treatment has hitherto been found unsatisfactory."

Acute atrophy of the liver is a rare disease, or at least seldom diagnosticated.

Murchison found but one case in 15,000 admissions to the London Fever Hospital. Frerichs has been able to collect from all literature but 31 cases. Prof. Loomis has seen one case.

It is worth remark that the child in this case, at the end of a full month, remains icteric, with costive bowels, a tendency to heavy and prolonged sleep, and a strong sulphurous odor exhaling from the skin. These conditions are now slowly passing away, it nurses well and is gaining weight.

THE HYPOSULPHITE OF SODA IN VARIOLA.

By WILLIAM A. CORWIN, M.D.,

ASSISTANT SURGEON U. S. NAVY, U. S. S. BENICIA, ASIATIC SQUADRON, HARBOR OF YOKOHAMA, JAPAN.

Some time since much interest and discussion were excited in the medical world by the investigations of Professor Polli, of Milan, as to the value of the sulphites in the treatment of zymotic diseases. Experience has in part verified what theory anticipated, and the value of this line of treatment, we believe, has been demonstrated clearly in direct proportion to its use in this class of affections during the initial stage.

The sulphites, among their advocates, have nearly passed through that phase of professional opinion which at first elevates every new remedy to the rank of a "panacea," and then allows experience to determine its true value and real worth. Whatever may be revealed concerning their therapeutic value in the future, it is quite certain that in the whole range of materia medica there is nothing that acts so efficaciously in the amelioration or cure of that dread scourge, small-pox, as does sulphur in its various combinations, as sulphurous or hyposulphurous acid with an alkaline base, when administered during the premonitory fever.

If these observations shall be corroborated in the practice of others, the facts will be valuable not only as a guide to practice, but as, in a great measure, furnishing additional proof of the truth of the fermentation theory of variola and its congeners.

It was the supposed identity of the process of fermentation outside the body, with the morbid process giving rise to that train of symptoms, and anatomical changes which we call in one case, "small-pox," in another, "measles," and in a third, "scarlatina," that led the learned professor at Milan to institute the experiments with the sulphites, knowing, as he did, their influence on common fermentation processes.

This "supposed identity," supported as it is by many common phenomena, and by a nearly common history, is rendered still more probable when a reagent is discovered, which exerts a specific influence in both cases, alike destroying each set of closely resembling phenomena.

The U. S. S. Benicia arrived in the harbor of Yokohama, Japan, November 22, 1870. At Yokohama, and at other prominent Japanese seaports, small-pox may be said to be *endemic*, occasionally prevailing among the foreign residents, and then assuming an epidemic form. It has so prevailed there during the past winter to an unusually severe extent, causing considerable mortality not only among the permanent foreign residents, but also among the English and French troops stationed there, and the merchant and nava shipping in port. We were destined to have our share the first case occurring in a seaman on the 18th December, 1870.

The patient was at once separated from the rest of the crew, until arrangements could be made for transferring him to the General Hospital ashore, where the case proved confluent, and resulted fatally in a few days. Measures were at once taken to secure a suitable building for our own hospital purposes, and thus have our sick under the immediate care of our own medical officers.

A second case followed on Christmas-day, and the disease gradually progressed until sixteen of the ship's company, including two wardroom officers, were "on the list." The cases were of more than average severity four proving fatal. Of the latter all were confluent,

three of the patients being men of intemperate habits, and the fourth, a negro, who died during convalescence from the disease, from a sudden attack of œdema of the lungs.

A large roomy dwelling-house, selected with excellent judgment by Surgeon H. C. Nelson, U. S. N., and situated on the bluffs to the rear of the city, had been secured as a temporary hospital, and thither the cases were transferred as fast as they declared themselves, beginning with the second.

On the occurrence of the third case it occurred to me to try the effects of the *bisulphite* of soda; but this drug could not be obtained. So, with the concurrence of Surgeon Nelson the *hyposulphite* was employed in drachm doses, and we had every reason to be gratified with the result. This treatment, used in the premonitory fever *only*, was commenced with the *fourth* case, and its effects carefully watched. They were those of an *alterative*, mild *hypnotic*, and *laxative;* its administration being in most cases followed by a subsidence of the fever, a tardy or incomplete development of the eruption, and relaxation of the bowels with watery stools. Upon the full development of the eruption the remedy was generally discontinued, and a supporting *régime* adopted, egg and brandy mixture, with easily digested food. The good effects of the salt were generally manifest after the first dose; the patient losing the heat and dryness of the skin, expressing himself as much more comfortable, and passing a good night. In two or three of the cases the eruption was delayed from twelve to twenty-four hours after the usual time for its appearance, and in one patient the eruption consisted of irregular erythematous patches with successive crops of minute vesicles in the flexures of the limbs. The average duration of the first three cases (fatal) was six days. Of the cases that recovered one was *malignant*, the rest of all degrees of severity. Their average duration was *twenty days*.

What I particularly wish to have noted is the fact, that in direct proportion to the early and free use of the remedy, really harmless for evil while so potent for good, was the disease ameliorated and its average duration shortened, and this in an epidemic of more than usual severity.

It may be objected that the cases enumerated are too few to establish the value of the remedy. This is more than is claimed for the results given. My only object is to add a trifle to the evidence constantly accumulating in the columns of the various medical journals as to the value of sulphur and its lower combinations with oxygen in the treatment of the zymoses, and to elicit, if possible, from the profession at large the results of wider observation and experience. (*Vide* note on topical use of Sodæ Sulphis in Erysipelas, by Dr. Addinell Hewson, Transactions Coll. Phys., Phila. 1867; also note on Sodæ Hyposulphis as a prophylactic in scarlatina, Dr. N. L. North, Aitken's Practice, Am. Ed., page 318.)

Theorizing upon the *modus operandi* of drugs in the modifying of disease, is, for the most part, idle work with the knowledge we now possess, but if the above-named agents exercise so defined and specific an effect on organic germs *without* the body, certainly a partial experience, if favorable, should induce their further trial in disease.

Salivation Produced by Artificial Teeth.—Dr. P. A. O'Connell, Boston, Mass. (*Boston Med. and Surg. Journal*), believes that wearing artificial teeth, which are mounted on red rubber, is capable of producing salivation. The red rubber receives its color from the sulphuret of mercury.

ON VERY WIDE STRICTURE OF THE URETHRA.

BEING A PAPER READ BEFORE THE WESTCHESTER COUNTY MEDICAL SOCIETY.

By Z. EDWARDS LEWIS, M.D.,

OF WEST FARMS,

FORMERLY HOUSE SURGEON TO THE NEW YORK HOSPITAL, AND ASSISTANT DEMONSTRATOR OF ANATOMY IN THE UNIVERSITY MEDICAL COLLEGE.

Mr. President, and Gentlemen:—The paper to which I have the honor of asking your attention to-day is entitled, "On Very Wide Stricture of the Urethra," in contradistinction to the many which have been written on "very narrow stricture." And by the term "wide stricture" I do not mean to indicate the incipient condition of ordinary stricture, which in the absence of treatment is sure to be gradually changed into the condition of impermeability, that loudly, nay imperatively, calls for benevolent interference; but I refer to what I believe to be a distinct species of stricture, which ought to be recognized as such, and which may be defined as a slight pathological narrowing of the urethra, with marked indisposition to progressiveness, and occasioning little or no local disturbance, but giving rise to constitutional symptoms.

It is probably safe to assert that wide stricture is invariably a sequela of gonorrhœa; though I have seen it in one case where the patient, with every disposition to aid in the investigation, and freely acknowledging impure connection, absolutely denied that he had ever had any urethral discharge, or any other of the ordinary symptoms of urethritis. In this case, as the diagnosis was clear beyond cavil, and was justified by the result of treatment, I was compelled to assume that there had been a concealed gonorrhœa, with inflammation of sufficient intensity to cause a pathological alteration in the urethral walls, and yet too slight to attract intelligent observation.

The diagnosis of wide stricture is always reasonably easy to the practised hand, after the attention has once been directed to the urethra as the seat of disease; but the fact that occasionally so few and so slight symptoms are present that the patient himself only notices or regards them on account of their persistence, will explain the frequent overlooking of this locality in the effort at diagnosis, especially when it is noted that in these cases the symptoms are mainly or entirely reflex. It is a curious fact, and yet one to which observation and deduction should have led, that these reflex symptoms are strikingly analogous to those excited by diseases of the womb in the female; and a strong point in the analogy, which should be marked, is, that while these symptoms are excited by wide, that is, in a certain sense, by slight stricture, so, also, very intense pain, and very grave constitutional disturbance, are often occasioned by very slight, and, judging *à priori*, very insignificant womb disease. A bearing in mind of this pathological parallelism would throw a flood of light upon many a case of otherwise doubtful diagnosis.

The symptoms of wide stricture, in the order of their frequency of occurrence, and prominence in the mind of the patient, are—weakness of the back; pains, varying in intensity and in clearness of definition, located at times on the right side and at times on the left, now in front and now behind, but almost always in the hypochondriac or lumbar region; a very slight mucous or muco-purulent discharge from the urethra, observed occasionally or constantly; distressing seminal emis-

sions, by no means confined to the night, and sometimes carried to the extreme of virtual impotence; finally, grave general demoralization of both mind and body. Positive interference with micturition is never present.

The concurrence of *all* of these symptoms almost obviates the necessity, though it should never prevent the employment of other and positive means of diagnosis; but the presence of even one, and that the most indefinite of them, should direct attention very strongly to the urethra as the seat of the disease, and should occasion an exhaustive examination.

The best instrument of positive diagnosis, and indeed the only one of practical value in very wide stricture, is the flexible bulbous bougie, which is to be employed in accordance with the following rules: Select a bougie whose bulb will just pass through the *meatus urinarius*—notoriously the narrowest point in the healthy urethra; oil the instrument well, and, retaining the pendulous portion of the penis firmly, but with a light grasp, in a somewhat dependent position, pass the bougie into the urethra with great deliberation, holding the stem the while very delicately between the thumb and forefinger. If wide stricture exists, in all probability there will be no obstruction to the free introduction of the instrument till it has entered for a distance of about 5¼ inches, when it will be checked in its onward course. By careful manipulation the arrest is to be made perfectly certain, and then the bulb is to be pressed against the obstruction. Generally very little pressure is needed to carry the bulb through the stricture, sometimes *so* little that the confidence of the operator in his just acquired certainty is almost staggered; however, he is reassured, and confirmed in his diagnosis, if, after waiting a moment, he very gently and cautiously withdraws the bougie; for the bulb, with its sharper posterior edge, is caught even more firmly than in entering, and in most cases comes through with a slight jerk. Where gleet is one of the known symptoms, and sometimes where the discharge is so slight as not to have attracted attention, the bulb comes out loaded with pus.

The case is now satisfactorily made out, if it can be differentiated from the incipient stage of ordinary stricture by the length of time through which it has existed, and by the severity of the constitutional disturbance. In a type case under my care, two years ago, in which all the symptoms were present in a very aggravated degree, the man being totally incapacitated for his work—a mason's—by the pain and weakness in his back and by his general debility, and having been for some time completely impotent by reason of premature emissions, and where the disease had incontestably existed for at least five years, and probably for nearer seven, the stricture causing all the trouble was but just detected by a No. 14 bulb.

It is pertinent right here to enter an earnest protest against the practice, still persevered in by some surgeons, of using steel sounds in examinations for diagnosis in suspected disease of the urethra. These instruments are inefficient and bungling even in cases of tight stricture, where they indeed reveal the existence of an obstruction, but give no farther light; while in wide stricture they are worse than useless, even harmful; since the weight of a sound large enough to touch the obstruction is so great as often to carry it through into the bladder almost without any pushing, and so the operator concludes that there is no stricture, misses the diagnosis entirely, and fails to cure his patient. Much more surely does this follow if the surgeon holds to the opinion—fortunately now obsolete in all regions of authority—that the terms No. 12 and *full-sized* sound are interchangeable, and that the No. 14 is the *ne plus ultra* for urethral dilatation.

The prognosis in wide stricture is always good when predicated upon correct treatment; in fact so good that the patient may almost be *promised* a cure within a reasonable time, if he strictly follows the directions of his surgeon. The length of time required for the treatment I have found to vary but little from that demanded by the gradual dilatation of ordinary stricture of parallel severity. Sometimes the resemblance already remarked between the symptoms of wide stricture and of womb-disease extends even to the rapid improvement in the constitutional symptoms under treatment.

The correct treatment in these cases I believe to be invariably by gradual dilatation, aided by such remedies addressed to the constitutional symptoms as the exigencies of different cases may indicate; the patient being in the meanwhile absolutely prohibited from taking any kind of alcoholic stimulant. I have known a couple of glasses of wine to throw a case back at least a week. When the constitutional symptoms are marked I always employ a combination of quinine and iron by hydrogen with the most beneficial results.

The fittest instruments for gradual dilatation are the conical pointed steel sounds with Thompson's curve. When the stricture has been accurately measured with the bulbous bougie, a steel sound of the next larger size is to be selected with which to commence the treatment, and as this has a point four sizes smaller than its shaft it will pass into the stricture with the utmost ease, and by its own weight or with the slightest pressure will enter the bladder, and thus begin the dilatation. It is to be left *in situ* from a few seconds to a few minutes, according to the sensations of the patient, and then withdrawn with the same delicacy with which it was made to enter, as the rapid withdrawal of a sound is generally quite as painful as, or even more so than, the rapid introduction thereof. This operation may be repeated on the second or third day with the same instrument, which, on being withdrawn, is to be immediately replaced by the next larger. The treatment rests here for two or three days, when it is to be continued with gradually increasing instruments and intervals of time, until that sound can be passed with ease through the stricture which just fills completely the *meatus externus*, when the patient will, in nine cases out of ten, be entirely cured, may be taught to use the sound for himself, and dismissed with the injunction on no account to omit its introduction once a week for at least six months. If the patient can be retained under observation, and the instrument always passed by the surgeon, so much the better.

The importance of the complete dilatation of the stricture to the full calibre of the normal urethra cannot be overestimated or overstated. It is impertinent to object that a stricture which is only detected by a No. 14 bulb can be of no injury to the patient, since it leaves abundant room for the flow of urine, as a sufficient answer to this is that such a stricture *has* done grave injury, and that the patient has been restored to perfect health by the complete dilatation of the constricted portion of the canal. If a contracted *meatus externus*, either congenital or due to stricture, prevents this complete dilatation, it is absolutely necessary that this contraction should be divided or the patient must go uncured. The majority of patients' urethræ will admit No. 18, though full dilatation is sometimes reached with a smaller instrument. On the other hand, in some cases even No. 18 will not do. In the case referred to above I almost feared to lose my No. 18, as I saw the ring below the handle disappear

through the *meatus*, and I was obliged to have a No. 20 manufactured to complete the cure. Indeed, this point was admirably illustrated in the treatment of this patient. He got better steadily as the dilatation progressed, but with the No. 18 he stopped, and there was no improvement for a couple of weeks or more. Almost from the first introduction of the No. 20 the improvement commenced, and went on to complete relief. The aim should always be to dilate up to, if not even a little beyond, the full normal calibre of the urethra.*

A consideration of the pathology of wide stricture is not precluded by the scope of this paper, but neither is it particularly called for, since there are no distinctive features; nor would it be so much in place as in a systematic treatise upon the general subject of which this is only a subdivision. It would throw no light upon the reflex symptoms, which await for their explanation the opening of the whole subject of reflex phenomena.

In conclusion I venture to insist upon the necessity of using the utmost delicacy in treating *these* cases of stricture of the urethra, as well as all others. And in saying this I do not mean simply to use a hackneyed phrase, but rather to state as a fact, and to enforce the statement, that in no other surgical operation is there more need of gentleness, delicacy, and the total absence of anything like violence; and, further than this, that in none is a favorable termination of the case more dependent upon the exercise of these qualities than in the treatment of stricture of the urethra.

POPLITEAL ANEURISM

SUCCESSFULLY TREATED BY THE APPLICATION OF THE

"ARTERY CONSTRICTOR" TO THE FEMORAL ARTERY IN SCARPA'S SPACE.

By S. FLEET SPEIR, M.D.,

BROOKLYN, N. Y.

W. S., æt. 25, steward of a vessel, was admitted to the Brooklyn City Hospital, April 20, 1871. Dr. Burt, Resident Surgeon, gathered the following history:—

Two months ago he cut his right foot upon the dorsum. When the wound was in its worst condition, a swelling appeared in the popliteal space about the size of a walnut, near the seat of the present tumor; it gave him no pain, and disappeared entirely before the wound healed. After the healing of this wound, he complained of nothing until the following accident, which occurred two weeks ago. While on board ship, a heavy sea knocked him off his feet; he fell alongside of a heavy spar and struck the inner side of his knee against a cleat. On the following four days he had considerable pain, increasing at night, but he did not give up work. On the fifth day he was compelled to take to his bed, from which he was not removed until he arrived in New York, suffering intense pain all the time.

On examination after admission to the hospital a popliteal aneurism was discovered in the right limb, with considerable œdema of the right leg and foot. The leg was bent at right angles to the thigh, and he complained of great pain.

April 22.—Treatment was by opiates to relieve pain. Bowels moved yesterday; urine drawn off with the catheter; knee swollen, tender, and very decided pulsation posteriorly and laterally—controlled by pressure on the femoral artery.

April 26.—After consultation with my colleagues, I decided to apply the "Artery Constrictor" which I recently presented to the profession for trial, and which has been made known by publication in the "Medical Record" of April 1, 1871.

Assisted by Drs. Kissam and Hutchison, and the resident staff, I cut down upon the femoral artery at the point of election in Scarpa's space, and applied the "Constrictor" to the femoral artery after opening the sheath and separating the artery from the vein. All pulsation in the tumor ceased at once, and the constrictor was removed. A little blood making its appearance (a drop or two), the vessel was examined and injury to the external coat was suspected of being its cause (for I had drawn the constrictor very tightly down upon the artery); however, this was not the case, and I judged that a small branch had been cut off in taking up the main artery. So, to make everything secure, I reapplied the constrictor to the artery a little above the first point of application, and then removed it. The vessel was now examined carefully, and found to be perfectly occluded and a clot forming within it, and all as satisfactory as could be wished. The wound was then brought together with silver sutures and adhesive strips; and an intermitting digital pressure kept up for a while with a view to produce a large and firm coagulum in the vessel.

April 27.—A large part of the wound appears to have united by first intention. One point, however, appears irritated by the adhesive straps where they were irregularly applied.

April 29.—There is some suppuration from the point of the wound above indicated. One of the sutures was removed yesterday. There has been no pulsation in the tumor since the operation. The leg has decreased in size, and still keeps at right angles to the thigh. The temperature of the limb has been good, and is sustained by cotton batting. Patient now has but little pain in the limb, and is only troubled with a feeling of soreness in his back and side from lying. Eats moderately—urine still drawn off by catheter.

May 3.—The point from which suppuration was somewhat free for the last few days now discharges but little. The rest of the wound has united by primary adhesion. Patient feels good and is doing well.

May 12.—The wound has entirely healed. Patient can straighten the limb, and sit up in bed. The swelling has disappeared from the limb with the exception of a small hard tumor in the popliteal space. He complains only of a dumb sensation in the foot. Eats well and receives no opiates.

Remarks.—The successful result obtained in this case affords an opportunity to draw attention to the applicability of the "Artery Constrictor" to the cure of aneurism. Although a popliteal aneurism is not regarded nowadays as worthy of more than a passing notice, yet I trust that the method used and the rapidity of the cure in this case will be sufficient excuse for reporting it.

There are three points in this case which are especially worthy of attention: *First*—The apparently severe use of the constrictor upon the vessel without causing sloughing or separation of the external coat—in other words, the complete occlusion of the artery, by invagination of the external and middle coats without interrupting its continuity.

Second—The great tendency to, and partial accomplishment of, union by the first intention due to the freedom from any foreign substance in the wound.

Third—The entire absence of any risk of secondary hemorrhage.

* Professor Gouley, of New York, has had an instrument constructed by Tiemann & Co. for use in cases requiring excessive dilatation, which obviates the necessity for sounds of unusual size. It may be described as a very strong and large (No. 12) two-bladed Thompson's dilator, which, when fully opened, exceeds, at its widest point, size No. 20.

This last consideration would seem to commend the artery constrictor as particularly applicable to the cure of aneurism of large vessels in the neck, where one of the chief dangers appears to be from secondary hemorrhage. That fact that the wound may be entirely healed before the time of the separation of a ligature from a large vessel (the moment of greatest danger) appears to offer a great advantage and a sure protection against secondary hemorrhage.

In the application of the artery constrictor to the treatment of aneurism it is necessary to have the instrument of a size in proportion to the vessel to be constricted—that is, for large arteries a large instrument.

Another important point is to flex the limb in such a way as to relax the parts around the artery and the vessel itself before the application of the constrictor. This allows more freedom to the vessel for contraction and retraction, and gives a more perfect invagination. This proceeding was not made use of in the case now reported, but was suggested by it as an additional means of obtaining a perfect result.

A CASE OF PLACENTA PREVIA, WITH REMARKS.

By B. G. McCABE, M.D.,

MONTICELLO, NEW YORK.

Placenta previa being of comparatively rare occurrence and fraught with such alarming consequences, it seems eminently proper that each member of the profession, when opportunity affords, should throw what light he can on its nature and treatment, especially if of a practical character. And it is for this reason alone, rather than to offer any new theory, or to advocate any favorite hypothesis, that this article has been prepared.

Mrs. L. H., aged 33 years, was pregnant with her fifth child. Everything went on well until the commencement of the seventh month of her pregnancy. On the 12th day of June was first called to see her. I found her suffering from quite a severe attack of hemorrhage (which had been coming on gradually for about a week); the mouth of the womb high up and not dilated sufficiently to admit with ease the point of the index finger. I directed the patient to be placed in a cool room, with light clothing, applications of cold water to the vulva, and enjoined perfect rest, cool drinks, the feet and hips to be elevated, which, in a few hours, checked the hemorrhage. I informed the family of the nature of the trouble, and requested that I might be called immediately if she was taken worse. In two or three days, on getting up, the hemorrhage returned again, but there being but slight dilatation of the os uteri ordered the same applications to be made, and in addition the alum plug and tampon, which was continued with intervals of a day or two, till the 21st of June, when she was taken with more active hemorrhage, and with slight labor pains and some dilatation of the os. Knowing the difficulty with which the mouth of the womb is generally dilated at that early stage of pregnancy, and hoping that labor might come on, I though it best to watch the patient and wait. Early on the morning of the 22d, the hemorrhage coming on more violently, the os having dilated to the size of a half dollar, and fearing that the strength of my patient would soon begin to give way from the protracted hemorrhage, I determined to wait no longer, but to proceed at once to deliver her. Summoning my partner, Dr. E. F. Quinlaw, who put her under the influence of ether, I proceeded as follows: Placing her in the position for turning, I gradually and slowly dilated the mouth and neck of the uterus with my fingers, brought it into a conical shape, till able to introduce the whole hand. Passing it along by the side of the placenta, when above it I ruptured the membranes, grasped the feet which I found occupying the right side, and when brought down waited a few moments and gave her 3j of Squibb's fluid ext. of ergot; then delivered the child, which I found alive, although partially asphyxiated. The placenta soon followed, and the uterus contracted down actively and firmly. The mother and child at this time (ten days after the delivery) are both doing well.

A few practical thoughts on the above. I gave ether in this case, not from choice (as I prefer chloroform in obstetrical operations), but for two reasons: 1st. I expected to keep her for some time under the influence of the anæsthetic, as the os and cervix uteri are more thickened and contracted at seven than at nine months, taking a longer time to dilate them. I therefore considered ether the safer of the two. 2d. Because I wished, after turning the child, to rally her from the anæsthetic sufficiently to enable me to give ergot, so as to insure permanent contraction of the uterus, which it did. If given prior to the anæsthetic, unless one is quite expeditious, it will materially interfere with the operation of turning; and the amount of time taken up in bringing the patient under the influence of the anæsthetic, and the trouble and time required in dilating, the most expert cannot always foresee. I apprehend that many fail in dilating the os uteri as early as desirable from their being in too great haste to accomplish it. In this case, no doubt, by taking a longer time, I might have dilated sufficiently to have introduced my hand several hours earlier. From the experience I have had in several of these cases, during the past 25 years, I am of opinion that any physician is justified in not waiting till the os is dilated to the size even "of a half dollar" before he operates, especially if at or near the full time, the hemorrhage is active, and the os dilatable. It is a nice point, to be sure, and requires the greatest coolness on the part of the accoucheur, to act just at the proper time, but I think it is better to be ready a little too soon than a little too late. I believe there is but little danger from violent hemorrhage, while dilating the os after the first gush of blood is passed, if the points of the fingers when once inserted are not withdrawn, but gradually and *persistently* carried up till the work is accomplished, as you have as good a plug while doing it as one could desire. Counsel is always desirable, and the timid should by all means avail themselves of it, or pass the patient into other hands.

Reports of Hospitals.

MANHATTAN EYE AND EAR HOSPITAL.

CASES OF CATARACT.

Reported by DAVID WEBSTER, M.D.,

HOUSE SURGEON TO THE HOSPITAL.

SENILE CATARACT.

Case I.—Service of Dr. Roosa.—W. H. H., aged fifty-five, operated Nov. 30, 1869. Corneal flap extraction; Beer's knife used; no anæsthetic. Iris wounded in making section, and iridectomy therefore performed. Lens easily evacuated; no vitreous lost. Small amount of cortical substance removed with Daviel's spoon, and a little remaining in pupil. Flannel retentive bandage.

Dressing reapplied in forty-eight hours; no swelling of lids and no pain.

Dec. 6. Eye opened; line of suppuration in wound.

Ordered stimulants, quinine, and atropine. Eye opened every day subsequently.

Dec. 10. Suppuration limited under improved nutrition.

Jan. 2. 1870. Cornea almost entirely clear, but pupil blocked up by a mass of lymph and pus, the result of capsulitis. This mass is rapidly absorbing; perception of light good.

Jan. 7. Dismissed temporarily.

Jan. 24. Iridectomy upwards and inwards under ether. Lance-shaped knife used; segment of iris easily removed. Hemorrhage into anterior chamber from iris. Dr. Agnew's black silk dressing.

Feb. 3. Reads No. 20 with glass readily.

Feb. 10. Vision = $\frac{1}{1}$; reads Snellen No. $8\frac{1}{2}$ with $+2\frac{1}{2}$.

Feb. 27. Vision = $\frac{1}{1}$.

March 12. Vision = $\frac{1}{1}$.

Case II.—Service of Dr. Roosa.—Gabriel B., aged forty-five. Operated January 13. 1870. Extraction by corneal flap, with Beer's knife, lower section. No anæsthetic; no injury of iris; no iridectomy. Lens very hard and amber-colored, but extracted without difficulty. Dr. Agnew's black silk dressing applied.

On night of fourth day had slight pain over brow, lasting only a short time.

Opened eye on sixth day; wound healed kindly; counts fingers readily.

Jan. 25. Continues to improve; sclerotic injection still considerable.

Feb. 3. Vision = $\frac{1}{10}$.

This patient returned home and resumed his occupation as a farmer, which he has been doing since with very good vision, but the exact amount has not been measured.

Case III.—Service of Dr. Roosa.—Susan T., aged sixty, operated Feb. 7, 1870. Extraction by corneal flap with iridectomy. Beer's knife used. No anæsthetic given; lids held by assistants; lens extracted without difficulty; no loss of vitreous. Dr. Agnew's black silk dressing applied.

Patient passed a very comfortable night; complained somewhat of subjective flashes of light for the next two days. Atropine in corner on third day. Opened eye at end of fifth day; cornea clear; pupil apparently black; instilled atropine and closed it again.

Feb. 17. Everything looks well; can now see ring on finger; atropine three times a day.

Feb. 25. Dismissed with vision = $\frac{1}{6}$.

March 3. Vision = $\frac{1}{4}$.

March 17. Some capsule in pupil, but hole in centre of it.

March 30. Vision = $\frac{1}{4}$.

May 12. Vision = $\frac{1}{4\frac{1}{0}}$. Patient was advised to submit to a needle operation.

Case IV.—Service of Dr. Roosa.—William K., aged fifty-six, operated Feb. 3. 1871. Extraction by corneal flap upwards with iridectomy to allow lens to escape. Beer's knife used. Case complicated by pterygium.

March 23. Vision = $\frac{1}{20}$.

March 24. Vision, with glass $+3$, = $\frac{1}{15}+$, or $\frac{1}{15}-$; that is, he calls E, F, and O he mistakes for C. With $+2\frac{1}{2}$ reads Snellen No. 12 at nine inches.

April 14. Vision = $\frac{1}{10}$ with $+4$, and he reads Jaeger No. 14 at one foot with $+2\frac{1}{2}$.

May 10. Vision remains about the same. Delicate membrane in pupil.

Case V.—Service of Dr. Roosa.—Sarah M., aged 70, of feeble constitution and poor appetite, operated May 18, 1871. Extraction by corneal flap upwards without anæsthetic. Beer's knife used. The section was large, including about half the cornea. No loss of vitreous; a slight amount of cortical matter left in pupil. The iris was cut while completing the section, and hence iridectomy had to be performed. Dr. Agnew's black silk dressing was applied.

June 12. Has had a low grade of iritis, with very little pain, which has been treated with atropine six times a day, and leeches to temple. She was built up, meantime, with milk and beef-tea and spiritus frumenti.

June 15. Dismissed, still improving.

June 24. Vision = $\frac{1}{20}$, and rapidly improving.

July 3. Vision $\frac{1}{10}$, and with $+2\frac{1}{2}$ reads words of Jaeger No. 17.

TRAUMATIC CATARACT.

Case VI.—Service of Dr. Roosa.—Victor R., aged 26, entered hospital Jan 30, 1870. Six hours previously, while engaged in bottling soda-water, a bottle which he was in the act of filling burst, and a piece of the glass flew up and struck his right eye.

A wound of the cornea presented itself, about four lines in length, extending from the infero-temporal to the infero-nasal corneal margin, irregularly curved, its convexity reaching upwards about one-third of the diameter of the cornea. The inferior lip of the wound was everted, the iris prolapsed, and softened and opaque lens matter protruding, as well as partly filling the anterior chamber.

A four-grain solution of atropine was frequently instilled, the eye being kept closed during the intervals by means of a retentive bandage.

About one week after the accident Dr. Roosa performed a paracentesis through the wound to relieve tension, and, at the same time, endeavoring to get rid of as much as possible of the free lens matter. The bandage was continued for two days longer, and then a shade was used in its stead.

The same operation was subsequently twice repeated at intervals of eight or ten days, with marked benefit, the atropine being meanwhile continued.

The acute symptoms having mostly disappeared, and the patient being able to count fingers when held near the eye, he was now, March 18, allowed to go home for a while.

April 9. He was again taken into the hospital, and was operated upon by an iridectomy upwards under ether. Dr. Agnew's black silk dressing was applied, and no pain and very little inflammatory reaction followed.

April 27. Dr. Roosa stirred up the remains of the lens with a delicate lance-shaped needle. Considerable pain and inflammatory reaction followed, which was, however, promptly relieved by leeches applied to the temple and ice-water applications.

May 25. Vision = $\frac{1}{20}$, and constantly improving by absorption of remains of lens.

June 25. Vision = $\frac{1}{20}$, and still improving. There is some shrivelled capsule in the field of the iridectomy which has, probably, undergone calcareous degeneration; and there is synechia anterior, or attachment of the iris to the lower lip of the healed wound.

The projecting lip of the corneal wound is very much reduced in size, so that the line of union bulges but very little.

July 1. Reads, with lens $+2\frac{1}{2}$, Snellen No. $3\frac{1}{2}$ without hesitation, at the distance of one foot.

DOUBLE CONGENITAL CATARACT.

Case VII.—Service of Dr. Roosa.—Abby D., aged 50, servant, Irish, entered hospital Feb. 18, 1871, with congenital cataract of both eyes.

The cataract was of the stellate variety, consisting of an opaque, central nucleus, sending off branches to-

wards the periphery of the lens, the interspaces being more or less transparent. The iris was in a healthy condition, the pupil dilating readily to atropine.

The patient has had bad vision since her earliest recollection. She came to the hospital on account of floating scotomata in the visual field of the left eye, which had existed for three years, and which were rapidly growing worse, so as to seriously interfere with her domestic duties. She has been troubled with chronic rheumatism since twenty years of age.

Dr. Roosa performed an iridectomy downwards on her left eye on the day of her admission to the hospital. No accident attended the operation; the wound healed kindly, without pain or other bad symptom, and the patient was dismissed in ten days.

April 8. Patient caught cold by falling asleep lying on a damp kitchen floor; eye began to pain her next day, after reading her prayer-book in church. The following day the pain abated, but the day after she read the *New York Herald*, and the pain returned, and has since been persistent.

April 15. Readmitted to the hospital. There was severe pain, much ciliary injection; the lens presenting a dirty, cloudy appearance, especially a portion of it near the lower pupillary border. Phakitis was diagnosticated. The patient was treated with potass. iodid., potass. bromid., quinine, and iron in succession. Full doses of chloral and of codeine failed to relieve the pain, as did also leeches applied to the temple. We were obliged to resort to hypodermic injections of a solution of the sulphate of morphia, which were repeated daily and sometimes twice a day until the 22d of May.

May 15. Dr. Agnew, upon consultation, thinks the patient has a low grade of phakitis with effusion of lymph, caused by rupture of the suspensory ligament near the canal of Petit, and that the disease will run a tedious course.

May 22. Dr. Roosa, assisted by Drs. Loring and Pardee, extracted the lens by corneal flap downwards, made with a Graefe's knife, and enlarged with the Graefe's knife invented for that purpose. Whole lens removed, except that a small portion of matted capsule remains. Retentive bandage applied to both eyes, and black silk pinned on over it.

June 2. Patient had hypodermic injections of morphia for two nights following the extraction, since when she has taken no anodyne, and complained of scarcely any pain. Corneal wound healed well.

June 5. Dismissed, in good spirits, without pain, but apparently with commencing atrophy of globe. Perception of light remains.

June 19. Injection almost entirely disappeared, cornea clear, membrane in pupil, and patient says sight is improving. Atrophy does not seem to have progressed, and the sunken appearance of the eye is, perhaps, largely due to the falling away of the adipose tissue of the orbit.

Dr. Roosa believes that the point of great interest in this case is the following: No injurious impression seems to have been made by the iridectomy. There could hardly have been an injury to the lens, since more than six weeks elapsed from the time of the operation, during which interim the eye was well, until the outbreak of what seemed to be an irido-choroiditis, but which soon ran into a true phakitis. As is well known, an eye affected with congenital cataract is far from being a sound one. The uveal tract is probably in a pathological condition which causes the loss of nutrition to the lens, and this morbid state, of course, renders the eye very liable to inflammatory reaction.

The iridectomy, by cutting off a very little of the already scanty blood supply, may have been the feather weight which turned the scale when the injurious influence of checked perspiration (*i. e.*, when the patient lay down on the floor) attacked the eye.

It is possible, then, that we are not obliged to suppose any injury to the lens or its suspensory ligament by the knife in order to account for the phakitis. If so, the case is entitled to be considered as somewhat rare.

Progress of Medical Science.

A Simple Dressing for Fracture of the Clavicle.—Dr. Lewis A. Sayre, of New York (*Am. Practitioner*), has finally reduced the treatment of this fracture to *two strips of adhesive plaster, without any axillary pad;* and as such he now gives it to the profession as the simplest and most efficacious plan yet devised.

His method of keeping the inner portion of the clavicle from riding over the outer portion is *by putting the clavicular portion of the pectoralis major muscle on the stretch*, and compelling it to *pull* the clavicle in place, and thus overcome the tendency of the clavicular portion of the sterno-cleido-mastoid to elevate it, which it will always do unless this precaution is taken. After drawing the arm backward and retaining it there by a strip of adhesive plaster, pass another piece of plaster from the *well shoulder* across the back, and by pressing the elbow well forward and inward, the first plaster around the middle of the arm is made to act as a *fulcrum*, and the shoulder is necessarily carried *upward, outward*, and *backward;* and the plaster, being carried over the elbow and forearm (which is flexed across the chest) to the opposite shoulder, the place of starting, and then secured by pins or stitches, permanently retains the parts in position.

Dr. Sayre formerly commenced the first plaster on the inner side of the biceps; but he found that that muscle would roll around and the plaster would lose its hold, requiring to be renewed occasionally; and if it completely encircled the arm for the purpose of a stronger attachment, it would arrest the circulation, and thus prove dangerous. He uses strong and good adhesive plaster (Maw's moleskin is the best) cut into two strips, three to four inches wide (narrower for children). By this plan of treatment the patient is only detained from his daily avocation a sufficient length of time to properly adjust the strips of adhesive plaster.

In one instance a prominent lawyer of New York City slipped upon the ice and fractured his clavicle on the way down-town. He was brought to his office. Dr. Sayre dressed him in the manner described at 9 A.M., and before 11 he was pleading his case in the open court. A blacksmith was brought to his office with a fracture of the left clavicle. He dressed it, and in less than an hour the patient was again working at the forge with his other arm, and continued his labor without any interruption. In both cases the union was perfect and without *any* deformity. In closing, Dr. Sayre could multiply these cases by many similar ones, and he therefore feels quite confident that if any surgeon will follow the plan suggested, he will have equally good results.

A Migratory Testis.—A patient, 27 years of age, had chronic dysentery. Examination revealed a small pyriform tumor in the left inguinal region, the manipulation of which caused nausea and faintness. The discovery of but one testis led to the following history: In 1857, while trimming trees, he fell astride of a limb,

thence fainting to the ground. For a few days the scrotum, unlacerated, was exceedingly sensitive, and the inguinal tract of the left side was quite painful. Three days after the fall, the reduction of swelling and pain permitted a close examination, when the absence of the left testis was ascertained. No ill effects followed. He entered the line during the war and marched without inconvenience. During 1865 a tumor appeared occasionally at the internal ring, but was in exercise retracted. Of late the tumor has descended almost through the external abdominal opening, accompanied by a dragging dull pain; it corresponds in size, density, and sensitiveness with the right testis. The canal will admit the finger. There is no cicatrix on the scrotum.—*Cincinnati Lancet and Observer.*

New Test for Albumen.—Dr. C. M. Tidy has noted that a mixture of equal volumes of acetic and carbolic acids is a far more delicate test for the presence of albumen than any other method as yet proposed. In using this test with urine it is necessary to shake the test tube, as some opacity is produced by the mere admixture of fluid, which, however, disappears on agitation.—*British Medical Journal.*

Rupture of the Rectum and Bladder.—Dr. O. C. Gibbs (*Buffalo Med. and Surg. Journal*), relates an instance of this kind, where the patient, a man of 55 years of age, had fallen backwards upon a sharpened stake, which entered the rectum, lacerating both it and the bladder. The stake, which was broken off and left in the wound, was withdrawn soon after the accident. Severe hemorrhage followed. When seen by the doctor, several hours afterwards, the hemorrhage had nearly ceased; no urine could be passed through the urethra, but when the attempt was made, it spirted from the anus instead. As the patient refused to have a catheter passed and submit to other treatment, he saw him but once afterwards. He afterwards learned that the patient, about the fourth day, began to pass some water by the urethra, and a few days later had entire control of it, and passed it wholly through this passage. In two weeks he was out doing light work, and a few weeks later was able to do full work as a shoveller on the railroad.

Electricity in Cancer.—The London Correspondent of the *American Practitioner* recently heard at the Clinical Society the description of a case of encephaloid of the femur treated with electricity. The pain had gone beyond the control of morphine up to twenty-four grains per diem hypodermically, and enormous quantities of chloral. The continued current was based upon it, with the effect of destroying the pain and lessening the tumor somewhat, but death ultimately followed. Fourteen cases of cancer were also referred to by Althaus in which the remedy had been used. In all of them pain was destroyed; in two the tumor disappeared; in the remainder the disease progressed to death. The two successful cases were in the breast; the others were advanced cancers of the womb. These are unpublished cases. Althaus' apparatus consists of a gilt needle for introducing the continued current, or, when the tumor is large, a number of them joined to one wire. The theory is (partly at least), that a caustic alkali is set free or formed interstitially. Twenty-five applications were used in one of the successful cases. During the treatment the patients experienced no inconvenience; attended as usual to their daily work and pleasure. He says that Althaus has a broad, high forehead, with a large, open face, lighted up with intelligence. With the most varied information on all subjects he is as modest as a child.

Typhoid Fever Treated with Strychnia.—John E. Owen, M.D., Chicago, Ill. (*Chicago Med. Journal*), observes, that during the last four years, both in hospital and private practice, milk and the acid and strychnia mixture have been administered to patients with typhoid fever with success. The mixture is prepared as follows: ℞. Acid sulph. arom., ʒ iij.; strychniæ sulph., gr. $\frac{1}{3}$; syrup. simpli., ʒ v. M. Dose—a tablespoonful. There is one noticeable feature in cases treated by strychnia, viz., the dry, brown tongue soon becomes moist, and remains so during the treatment; this is effected, he believes, mainly through the agency of strychnia, by increasing the nutritive and assimilative functions of the system.

Bromide of Potassium in Croup.—S. B. Kieffer, M.D., Carlisle, Pa. (*Chicago Med. Journal*), cannot, after experiments from good authority, regard the bromide of potassium as *a solvent*, so to speak, of false membrane; but he does believe, and on this principle he has prescribed it, that just in proportion as it is a *sedative* to the cerebro-spinal system directly, so it is a stimulant, indirectly, to the nerve-filaments and circulation of the throat; and, as the inflammation in membranous croup is usually, if not always, of the asthenic character, it has the power, by its specific action, of equalizing the circulation and arresting the fibro-albuminous deposit. And when the disease is not too severe, or has not progressed far, the system thus, by its own inherent power, will be equal to the task of repairing the evil. His combination is about as follows for an infant:—℞. Bromide of potassium, gr. xx.; chlorate of potassa, gr. x.; ipecac, gr. j.; ext. of liquorice, ʒ ss; water, f. ʒ iiss. M. S., a teaspoonful every hour.

Dr. W. W. Dale (*Med. Times*), who has been using the same treatment, informs us that membranous croup, spasmodic croup, and laryngitis, alike have lost for him nearly all that dread and anxiety with which he once met them.

New Treatment for Small-pox.—Dr. J. J. Garth Wilkinson, of London, Eng. (*Canada Lancet*), has called the attention of the medical world to a new method of treating small-pox, which he has tried in four cases of varied degrees of violence, with complete success. In these cases he used *hydrastis canadensis* and *veratrum viride*, both internally and locally as a lotion. The former, he says, extinguishes the varioloid poison, while the latter subdues the inflammation and primary fever. In regard to diet, he advises a judicious use of brandy and water, claret, Carlowitz or Hungarian wines (port when the patient has begun to amend), beef-tea, and, in consequence, fruit. He claims for this treatment that it abridges the duration of the disease, makes it almost painless, subdues the inflammation and primary fever, annuls the secondary fever, checks pustulation, prevents itching and stench, and saves the patient from any but the slightest pitting. He also claims for the *hydrastis* that it is an effective prophylactic or preventive to ward off the approach of the disease. The plant named *hydrastis canadensis* is found within the limits of New York State, and probably elsewhere in the United States and Canada. The plant is popularly called orange-root, and sometimes yellow-puccoon, but it must not be confounded with another plant commonly called puccoon.

To quiet nervous restlessness, both during the course of the disease and the period of convalescence, he advocates the use of bromide of potassium.

Vomiting a Prominent Feature of Kidney Disease.—Dr. Calvin Ellis, Boston, Mass (*Boston Med. and Surg. Journal*), reports three cases of disease of the kidney, in which vomiting was the sole symptom.

Ether Spray to Spine in Anæmia.—Dr. John Rose reports the case of an anæmic girl, aged 13 years, who had chorea following rheumatism, who was successfully treated by ether spray, applied along the spine for four or five minutes each time; and after fifteen sittings, a very marked improvement took place, followed by complete recovery.—*Medical News.*

Hydrochlorate of Quinine in Hooping-Cough.—Dr. Breidenbach has used this drug in this disease, and finds it of essential service. He prescribes it in doses varying from 1¼ to 15¼ grains a day. In the most serious cases, after the use of the remedy for forty-eight hours, the frequency and violence of the attack began to diminish. To prevent relapses, he continued the use of the hydrochlorate for some time in smaller doses.—*London Practitioner.*

Luxation of the Semi-lunar Bone.—Mr. Erichsen reports one case only, and that was one of luxation upon the dorsal aspect of the wrist. A few cases of compound luxations of the semi-lunar bone have been from time to time reported, but none corresponding to that reported in the *Baltimore Medical Journal* by C. Granville Stone.

Invagination of the Colon in the Rectum.—Dr. Guersant (*Med. News and Library*) alludes to the rarity and gravity of invagination of the colon in children, and states that it always depends on a general depraved condition of the digestive apparatus. It is accompanied with colic, vomiting, and symptoms of strangulation, and presents itself in the form of a mucous tube of variable length, escaping at the anus. The general condition must, first of all, be combated by medical treatment, such as by tonics and astringents, for this affection is met with in weakly children. It sometimes happens that the portion of intestine invaginated becomes gangrenous, and is expelled from the bowel, when the affection persists for any length of time. At the commencement of the prolapse of the intestine, the surgeon may make efforts mechanically to press back the bowel, but this can only be done by means of a thick gum elastic catheter, olive-shaped at its extremity, or else with an instrument devised by the author, consisting in a metallic ring secured to the extremity of a piece of whalebone, in such a manner as to make a right angle with it, the ring having a diameter of about three-fifths of an inch, and the handle being about eight inches in length. The portion of invaginated intestine being engaged in the ring, which is previously greased, the instrument is gently pushed and turned towards the cul-de-sac, where it becomes arrested if the invagination is old, but yields readily to pressure if it be recent. This method of reduction may only be palliative, yet the hope may be indulged that the bowel will not become invaginated afresh.

The Use of Caustics in the Treatment of Menorrhagia.—Dr. Lombe Athill contributes some observations on the treatment of a form of menorrhagia to the *British Medical Journal* of June 27th, in which he mentions four cases of this affection depending upon "granular" condition of the mucous membrane of the cervix and body, and in three cases connected with sub-involution of the uterus, which were treated by the application of fuming nitric acid and nitrate of silver to the whole of the diseased surface, the os having dilated so as to admit the index finger as far as the disease extended, even to the fundus. Only the most happy results followed this mode of treatment. The acid was applied by means of a swab, a tampon of wet lint being put to the os, and strict rest in bed for several days being required of the patient, during which time injections of warm water were used.

Pertussis Curable by Local Treatment.—Dr. W. F. McNutt, San Francisco, Cal. (*Boston Med. and Surg. Journal*), mentions that his own experience, as well as that of Dr. R. T. Maxwell, his partner, is that most cases of whooping-cough can be cured by local treatment, and that one need only try the treatment to be convinced of the fact. But why, he remarks, attribute the pathology of this disease to Niemeyer, as some do, or call the local treatment of this disease new? Drs. McNutt and Maxwell have always used a solution of nitrate of silver, gr. xv. to the ounce, applied by the spray atomizer; this has been found to be a satisfactory formula.

There is no doubt in the mind of Dr. McNutt that local appliances are all that is necessary for treatment and cure of whooping-cough. And there is very little doubt that there is a variety of substances that can be used for the purpose. The solution of nitrate of silver, however, will seldom fail to effect a cure.

Placenta Prævia.—Dr. E. R. Willard, of Wilmington, Ill. (*Chicago Med. Examiner*), publishes an interesting history of six cases of placenta prævia which came under his observation. He finds that the application of a sheet—the same as for *paracentesis abdominis*—answers admirably in making pressure upon the abdomen, for the purpose of restraining internal hæmorrhage. The external flow can also be more effectually controlled by continuous firm pressure with a proper fitting tampon. In the absence of anything better, he has found a small-sized glass speculum, properly padded, and inserted wrong end up, to answer a good purpose. This procedure necessitates the constant personal attention of the physician until the accouchement is complete.

Medical Uses of Carbolic Acid.—Dr. N. S. Davis, Chicago, Ill. (*Chicago Med. Examiner*), in his "Report on the Medical Uses of Carbolic Acid" to the Illinois State Medical Society, refers to two cases of cancerous disease and ulceration of the os and neck of the uterus which were much relieved by using the solution of carbolic acid internally, at each meal time, and a stronger solution twice a day as a vaginal wash. They were kept comparatively comfortable for many months, but the effects were only palliative. A neighboring physician informed him that he had a case of cancerous disease, of well-marked character, that had been kept stationary and the patient comfortable more than twelve months, under the constant use of carbolic acid. Dr. Davis has also used it with temporary benefit in two cases of cancerous disease of the stomach. He does not regard carbolic acid as a specific for the cure of any form of disease, but from its mildly sedative influence on the organic nervous system and mucous surfaces, coupled with strong antiseptic properties, it is admirably adapted to meet certain indications that arise during the progress of a great variety of diseases.

Innocent and Morbid Growths.—J. N. Danforth, M.D., Chicago, Ill. (*Chicago Med. Journal*), in a paper on the "Microscopic Appearances of Cancer-cells," lays down the following simple rules for drawing the distinction between innocent and morbid growths:—Whenever a description of *one* of the cells of a microscopic specimen is a description of *all* of its cells, the chances are as ten to one that it is *not* cancer; whenever, on the other hand, the cells of such a specimen are so varied in form and size that philology and ingenuity and imagination, and the most unflinching resolution combined, utterly fail to accomplish the task of describing them, the chances are as ten to one that the specimen is from a malignant growth, whatever may be its name or location.

Delivery of Extra-uterine Fœtus through the Abdominal Walls after Four Years.—J. H. Beech, M.D., of Coldwater, Mich. (*Chicago Med. Journal*), records an unusual case of this character. The patient was 28 years old, weighing about 98 pounds, a primipara. The partially decomposed male fœtus weighed about seven pounds. She is now attending to some household duties, although there is a slight discharge from the external wound, which is about three lines in diameter, and when injected will hold about two fluid drachms.

Carbolated Cerate Dressing in Varicose Ulcer of Leg.—Prof. Andrews, of Chicago, Ill. (*Chicago Med. Examiner*), recently had an obstinate case of varicose ulcer of leg of 15 years' standing, which was cured by the injection of tinct. ferri murias into the varicose veins, and a dressing of an antiseptic ointment, composed of carbolic acid cryst., 18 grs.; adipis, ʒ j.

Carbolic Acid in Diphtheritic Affections.—Dr. F. C. Hotz, Chicago, Ill. (*Chicago Med. Journal*), wishes to draw the attention of the profession anew to this remedy, by reporting a number of cases of diphtheria which, during the last winter, he treated with the most gratifying success with carbolic acid. He used for this topical medication the acid in the following form:—℞. Acid. carbolic. cryst., alcohol, āā ʒ j.; aquæ, ʒ v.; tinct. iodin., ʒ ss. M. This makes a perfectly clear, transparent mixture, of a brown-red color, which soon, however, passes over into a pale yellow. The combination with iodine and alcohol effectually moderates the very unpleasant smell of the carbolic acid, and increases its antiseptic effect. This solution was applied to the diphtheritic exudation three or four times in twenty-four hours, by means of a camel's-hair brush. In adults and older children, it was in a diluted form (15 to 30 drops to a cup of water) used also as a frequent gargle, and for injections into the nostrils if the nose was implicated.

The Frequency of Affections of Articulation in Children.—According to Dr. Guersant (*Med. News and Library*), the order of frequency in which the different articulations are attacked in children is as follows:—

The occipito-altoid and alto-axoid articulations are less often attacked than those of the other regions of the vertebral column, which, in their turn, are much less frequently involved than the articulations of the limbs.

Chronic arthritis of the temporo-maxillary articulation is exceedingly rare.

The scapulo-humeral articulation, the articulation of the elbow, the wrist, and the phalanges, are very liable to inflammation, and this form of morbid alteration in children is often seen.

The articulations of the lower extremities, especially of the knee, are often attacked with white swelling.

The coxo-femoral articulation, which is frequently attacked with coxalgia.

Removal of the Entire Elbow-Joint.—Dr. Cheever, of Boston, at a late meeting of the Massachusetts Medical Society (*Boston Med. and Surg. Journal*), exhibited a boy on whose elbow he had operated by removing the entire joint, for disease, eighteen months before. The wounds had closed, the motion of the elbow was restored, and the arm was strong and useful. The operation was performed by subperiosteal section, a single incision being made posteriorly. The condyles were now reproduced, and the muscles had reunited to them. The only applications made were cold water, and occasionally liq. sodæ chlorinatæ.

Labial Tumors.—Dr. Frank A. Ramsey, of Memphis, Tenn. (*Journal of the Gynæcological Society*), in answer to a question of Dr. Storer, stated that in his practice at the South he had seen solid labial tumors more frequently in the black race than in the white. In this enumeration, he had not included instances of labial cyst, or abscess. Thus, in fifteen instances of labial fibroids that he had attended, twelve had been in the black, and but three in the white. He had never seen a specimen at all approximating in size to that removed and exhibited by Dr. Storer, of Boston.

Dr. Wheeler asked of Dr. Ramsey what had been his experience as to the comparative occurrence of fibroid deposits in the black race, in other parts of the body. Dr. Ramsey could not speak confidently upon this point.

Intra-Uterine Polypi.—Dr. Frank A. Ramsey, of Memphis, Tenn. (*Journal of the Gynæcological Society*), has found small intra-uterine polypi, from the size of a pea to that of a marble, very common at the South. He has seen perhaps twenty cases of the kind within the past five years. The affection was most frequent, he thought, between the ages of 30 and 35, and in those who had borne no children for several years. The os uteri in these cases was almost always dilatable.

Congenital Atresia Vaginæ.—Dr. H. P. Stearns, of Hartford, Ct. (*Journal of the Gynæcologial Society*), visited a married woman, aged 25 years; had menstruated since 15 years of age, and had been married two years. She had very little discharge at her monthly periods, and it was attended with severe pain, lasting generally seven or eight days. Her husband stated that intercourse was imperfect, unsatisfactory, and something must be wrong. Examination showed the external genitals well developed, the labia and nymphæ of normal size, and the mons veneris well covered with dark hair. On examination with the finger it was found impossible to penetrate more than one and a half inches. After the operation the husband was well satisfied with the improved accommodations afforded.

Two points in this case appear to Dr. Stearns worthy of remark: First, that three separate and distinct septa existed, instead of one, occupying about one and a half inches, with no obliteration or apparent contraction of the canal; and, second, that she should have menstruated through so minute an opening during so long a period, and with no greater derangement of the general health. Indeed, she stated that up to the age of 20 or 21 years, she had very good health, and since then she has suffered more at her monthly periods, and her general health has become deteriorated, but not to such an extent as to prevent her attention to her ordinary household duties.

Infantile Paralysis.—Dr. Brodhurst, of London (*St. Thomas Hospital Reports*), regards this affection as not a consequence of spinal congestion, but purely peripheral, a malady affecting the ultimate fibrillæ of distribution of the nerves among the muscular elements.

The Use of the Æsthesiometer in Diabetes.—Professor Laycock (*Medical Times and Gazette*) lately called the attention of his class to the fact that anæsthesia is one of the morbid conditions in diabetes mellitus, and that the defective nutrition and abolished functional activity of the cutaneous glands depended upon a centric neurosis, of which the hunger, thirst, and abnormal productions which characterize the disease are also signs. It is this effect in trophic innervation of the skin which renders diabetic patients so peculiarly predisposed to cutaneous diseases, and upon which the harshness and dryness of the skin depend.

THE MEDICAL RECORD.

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New York, August 15, 1871.

THE NEW DRUG LAW.

THE enforcement of the new Act known as the Irving Drug Bill has called forth a great many comments from the apothecaries of our city. Some time since we presented our readers with an abstract of the law, and remarked at length upon the absurdities of its provisions. On its face it bore the evidence of a wise enactment, and, as we predicted, it is being looked upon favorably by the people. It was framed to create political capital, and in so far it has succeeded. The people were made to believe that by a rigid examination of proprietors of drug shops and of their prescription clerks, wholesale poisoning by incompetent persons would be prevented. They do not care to look beyond this, and are anxious to see the law carried out to the full letter and spirit.

It is needless for us to say that the act is unjust in many particulars, not the least one of which is that it is so thoroughly partial, being confined to the apothecaries of New York City alone. If the law is such a salutary one, why not have its provisions extended throughout all the cities, towns, and villages of our State? Why not have its penalties reach every retailer of poisons within the jurisdiction of the Legislature? Again, the fact that every pharmacist, whether he have a diploma or not, has to submit to the examination, is a direct insult to the College of Pharmacy and our medical colleges. But this is no more than can be expected from a Legislature made up mostly of illiterate vagabonds, pot-house politicians, ruffians, and thieves. The fee for a license is also unnecessarily large, and adds to the burden of indignity. There are many other points to which we might draw the attention of druggists and physicians, but as we have already on a previous occasion presented them to our readers, we pass to the consideration of another branch of the subject.

The pharmacists of the city are not responsible for the Act, neither can they endorse it as a wise piece of legislation. Every one who knows anything of the practical workings of such a law is ready to predicate a failure of any really good results. As law-abiding citizens they are, however, compelled to conform to it. Under the circumstances it is peculiarly proper that they should do so. The public, from a superficial view of the requirements of the bill, seem anxious that the examinations should be enforced, and it is unwise at least for the druggists to protest against them. Very many have done so, and have gone so far as to say that very few of their number can be found proficient enough to pass. The conviction is thus forced upon their patrons that the druggists as a class are incompetent. We know so much to the contrary that we are surprised and ashamed to see so many, in letters to the secular press, prospecting failures in these examinations. It should be the pride of every knight of the pestle to be ready and willing to undergo any examination to prove his fitness for his responsible calling. Upon the question of examination alone no one should object. For the credit of the profession of pharmacy, we hope that there will be an end to these complaints of the rigidity and the indignities of the examination. The clause concerning examinations is, after all, the only part of the bill that reflects credit upon the pharmacists, that proves to the community how much is expected of them.

The Board, as at present composed, is a good one. Although Dr. Squibb would have added much to the strength of the Commission, it is probably his own fault that he is not a member. Whether this conjecture be true or not, it is certain that his name upon the list of examiners would have given universal satisfaction. As far as we have learned, the examinations have been carried on in the proper spirit, and every druggist throughout the city should be ready to prove that if he does believe the law to be a foolish one, he is not willing that the public should vote him a cowardly ignoramus.

DR. JAMES B. CUTTER, of Newark, who it will be recollected was so unfortunate as to commit the crime of abortion, and still more unfortunate in being publicly punished for the same, again comes up for notice. We learn from a daily paper that he has been expelled from the Essex County Medical Society on account of his crime. We are not aware of all the circumstances attending this expulsion, whether he apologized to the Society and they refused to accept the same, or whether he satisfied the committee as to the depth of his repentance. We merely record the fact, assuming that the grounds for action were judiciously taken.

In the account of his case to which we refer, there is a great deal of maudlin sympathy expressed for him. The cause of his expulsion is assigned to professional jealousy, which, in the eyes of the public, seems to prove that Dr. Cutter is such a brilliant light in his profession, that he is intolerable to all the other respectable physicians, who are of course lesser lights. Alas! greatness sometimes brings upon its unfortunate possessors dreadful penalties. It is also stated that the public are with him (probably in recognition of past services to the common-

wealth), and that he is determined to remain in Newark; also that a strong effort is now being made to expel him from the N. Y. Pathological Society. This seems to be another one of those newspaper advertisements with which the principal has nothing whatever to do. It is hard to be a martyr, but still harder to have the newspapers expose one's sufferings. We hope the profession do not intend to expel Dr. Cutter from his town; if they have any such intention, they may now know that he is not only repentant but defiant. We are a little surprised to learn what the N. Y. Pathological Society is determined to do. Dr. Cutter's case has not as yet even come before the Committee of Ethics, and how it is possible for the newspapers to be so well informed of the intention of that body is certainly an enigma. Dr. Cutter is in trouble enough, and we hope the daily press will not borrow any more for him.

The Centennial Anniversary of the New York Hospital was celebrated July 24th, at the rooms of the Historical Society. The present Board of Governors assembled, and the meeting was opened by the reading of the minutes of July 24, 1771. Mr. James W. Beekman delivered a very interesting address upon the early history of New York, and the circumstances which led to the establishment of the hospital. The address was carefully prepared, effectively delivered, and was full of facts of interest to every Knickerbocker. This was all very well; but how much better and more appropriate it would have been for the Governors to have made it possible to celebrate the hundredth anniversary in the "Old Main House." In view of the wanton destruction of the old edifice two years ago, the anniversary address may be viewed as a rebuke of the action of the Board at that time. No one can sympathize with the Governors in their talk over old times, when they have so deliberately sacrificed one of the oldest landmarks on Manhattan Island.

The affair reminds us of the boy who, after having murdered his parents, asked the Court for mercy because he was an orphan. There might have been some good excuse for this anniversary if it were made the occasion for the inauguration of the new hospital building, concerning which so much has been promised and so little fulfilled.

Apropos to the lamentable boiler explosion which is of so recent occurrence in this city, we notice that, according to the *Lancet*, a select committee of the House of Commons has reported in favor of a remedy which would undoubtedly prove perfectly effectual. The committee believe that the great majority of explosions arise from negligence, and they recommend that full responsibility for personal damage shall in every case rest upon the owner; and shall only be rebutted by proof that the accident arose from causes beyond his control.

Reports of Societies.

[*Official.*]

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 12, 1871.

Dr. A. L. Loomis, President, in the Chair.

TUBERCULOUS DISEASE OF KIDNEYS.

Dr. Sewall exhibited two kidneys taken from a man aged 28, who died two weeks before the date of the meeting of the Society. Dr. Sewall saw him only three days before he died. The only history obtainable was that in the latter part of the war, while in Virginia, the patient had a severe attack of intermittent fever, which reduced him very much. Since that time he represented himself as never enjoying good health. When Dr. S. saw him he presented the general appearance of a patient in advanced pulmonary phthisis. Physical examination of the chest failed to give any signs of the disease. On further examination a firm and resistant swelling, partly superficial and partly deep-seated, was discovered in the left lumbar region, extending as far forwards as the anterior superior spine of the ilium. No diagnosis was made. The patient gradually sank without brain symptoms, and died in the course of three days.

On opening the abdomen at the autopsy, both kidneys were filled with enormous abscesses, apparently containing broken-down tuberculous material. The right kidney weighed 15 ounces, and the left weighed 8½ ounces. All along the left side of the spine the glands were enormously enlarged, and converted into a great cheesy mass extending four or five inches along the side of the spine. The spleen was diffluent. In consequence of being hurried in the post-mortem, no examination was made of the lungs. The microscopical examination exhibited irregular granular formations in great abundance, with imperfect cells, some fatty matter, and a great deal of amorphous stroma. Some part of these kidneys had a little healthy structure, which probably was sufficient to secrete what little urine he made. He believed that the specimen illustrated primary tuberculosis of the kidney, an opinion concurred in by Dr. Janeway.

ABORTION.—THREATENED INTRA-UTERINE DECAPITATION.

Dr. Blumenthal presented an ovum from a woman married three months, and supposed to have been ten weeks pregnant. She had had a discharge of blood upon two or three occasions during this period, without being able to ascribe it to any over-exertion. Some three weeks ago (April 12) Dr. B. was called to her, and found her in labor. Means were used to control the discharge of bloody fluid and keep the ovum intact, but to no purpose. It passed the same evening. So far this was an ordinary history. On examining the ovum, however, the fœtus within it was found to have an unusual length of neck. Across the neck was a small band of fibrine, which, in Dr. B.'s opinion, would have eventually led to intra-uterine decapitation. This latter accident was certainly exceedingly rare, at least he (Dr. B.) had never read nor heard of an instance of the kind.

INFLAMMATION OF THE DECIDUA.

Within a few days (April 12) he was called to attend another lady, the mother of six living children. She being determined to have no larger family, has been in the habit of introducing instruments herself to bring

on miscarriage, despite the warnings she has constantly received of the danger of such practices. This woman was seized with hemorrhage, April 4, and in the course of twenty-four hours soaked three or four napkins. She stated that she was ten weeks pregnant, but had not used any means this time to bring on miscarriage. As the sequel proved, her assertion was not trustworthy. Upon inspection, after its escape, the ovum was found ruptured at one place, and the bag containing the fœtus was hanging over the edge of it. The decidual bag, instead of its usual semi-transparent appearance, was opaque and yellow, as though filled with pus. On lifting it up the bag burst, and the fœtus was found lying in a mass of fibrine. In Dr. B.'s opinion this condition of things had been brought about by the introduction of some instrument, probably a catheter, which had produced an inflammation of the ovum, causing a thickening of the surrounding tissues until it reached the decidua, when the inflammatory action resulted in a fibrinous deposit, and ultimately in miscarriage. Dr. Jacobi, to whom the specimen had been shown, pronounced it unique.

Dr. Terry remarked that there were several cases on record in which the heads of the fœtus were absent, suggesting the possibility of intra-uterine decapitation.

BLOOD-SAC IN LEFT PLEURAL CAVITY.

Dr. Saml. G. Whittall exhibited a specimen taken from a colored man, 33 years of age, single, and by occupation a waiter. He was admitted into Colored Home Hospital, March 29th, in a very feeble condition. His mental faculties were markedly impaired, and his statements were not at all reliable.

From other sources it was ascertained that he had been confined in the Tombs for about six months, during which time he had probably been insufficiently nourished.

From the date of his admission until the day of his death his general condition improved, though his mind still remained somewhat deranged. The treatment consisted of tonics and nourishing food.

On the 3d of April, in the afternoon, he became wildly maniacal; part of the time he would remain upon his back in bed singing loudly fragments of a hymn, then throw himself from the bed to the floor with a sudden spring, alighting at full length upon his back. While in this position he struck out violently with his legs, regardless of any obstacles which were in the way. His upper extremities were kept perfectly quiet. Five hours from the attack, during a severe paroxysm, he ceased to breathe. The fæces, but not the urine, were passed unconsciously. The struggles of the patient were of a voluntary nature, and not at all epileptiform in character.

Autopsy—21 hours after death. Body not markedly emaciated. The *brain* weighed 41 oz., and was healthy in appearance; so also were the meninges and vessels.

The *right lung* weighed 18 oz., was free from adhesions, and, with the exception of slight congestion, was healthy. The cavity of the pericardium contained an excess of transparent serum. The heart was healthy, but displaced considerably to the right. It weighed 11½ oz. There were numerous fatty patches in the aorta, immediately above the valves. The spleen weighed 6½ oz., was congested, and studded throughout with small tuberculous nodules, some of which were softened in the centre. The liver weighed 60 oz., and was moderately congested. Underneath the peritoneal covering were a few tubercles, but none in the parenchyma of the organ. The kidneys were somewhat enlarged and congested (weight of each 6½ oz.), the capsule firmly adherent, cortex thickened and pale. They were found granular and fatty upon microscopical examination.

The chief object of interest in this case was found in the contents of the left pleural cavity. Upon searching through the lower costal cartilages of this side, a large quantity of dark bloody serum escaped, and when the sternum was lifted, what appeared to be the left lung was found adherent to the parietes by universal and moderately firm adhesions. The incision through the lower portion of the false membrane, made in cutting through the cartilages, revealed within the sac a large amount of fibrinous coagula. By careful enucleation the whole mass was separated from its attachments, and removed, with the heart and pericardium. At first it was exceedingly difficult to ascertain what relation there was between the left lung and morbid product, as the whole was enveloped in one continuous sac. Careful examination, however, proved that the lung was connected with the blood-sac simply by adhesions, and could be readily separated from it. It was healthy, but compressed to about one-fourth its normal size, and pushed inward and upward along the vertebral column.

The blood-sac, thus isolated, was found to have occupied the whole of the pleural cavity from apex to base, and to have produced the compression of the lung and the displacement of the heart. In the interior of this sac were found coagula of both recent and ancient date. On the inner wall of the sac the fibrine had assumed a slightly laminated condition. After fully two quarts of serum had escaped, the mass weighed 51 ozs., including the lung, which weighed perhaps 15 ozs. The intercostal and œsophageal glands of the left side were enlarged and cheesy, and there were a few tuberculous nodules scattered over the pleura. The glands and pleura on the right side were healthy, nor were there notable changes in the other lymphatics. There was no evidence of injury, nor could I detect any ruptured blood-vessels.

The sac-wall was found upon microscopical examination to consist of connective tissue, well formed on its outer or pleural aspect, but not so fully developed upon the inner surface. In the latter place it was composed chiefly of caudate and club-shaped cells. No capillaries or other vessels could be detected. In view of the history of the patient, his long confinement and probable deprivation of proper food, and in the absence of any observable cause for the hemorrhage, it seems proper to regard it as of capillary origin, and as a possible manifestation of scorbutus.

In this connection I will refer to a case which came under my observation about three years ago, in which there was a large hæmatoma of the dura mater.

The patient, Caroline Wills, aged 40, was admitted into the hospital in the spring of 1868. She was so imbecile that it was impossible to obtain any history. Her answers were extremely tardy, her utterance tremulous and stammering. There was also a tremulous motion of the hands, but no paralysis. The patient denied that she was sick, but remarked that she was "as well as anybody." She would give the same reply to various questions, and that reply would nearly always be: "My name is Caroline, that is all;" sometimes she would omit part of the sentence, and answer, "Caroline, that is all," or, "That is all." By repeating the same question, however, several times, her mind seemed to recognize its true import, and she would respond correctly. Her appetite was good, bowels constipated, heart and lungs healthy. There was an anæmic bruit over base of heart, and some œdema of lower extremities.

Five days after admission she was seized with the symptoms of meningitis, which ran its course to a fatal

termination nine days from the attack. She died of coma.

Autopsy—twelve hours after death. Rigor mortis marked. Right lung healthy. Left lung intensely congested and bound to parietes by firm chronic adhesions. Heart healthy; aorta somewhat fatty. Abdominal organs healthy, except the liver, which was slightly fatty, and deeply fissured transversely from tight lacing.

Upon examining the cranial cavity the usual lesions of simple meningitis were found particularly marked upon the right side. The brain substance was healthy. In endeavoring to lift the dura mater from the left hemisphere, it was found to be adherent to a membrane of a bluish color, underneath which could be felt a semi-fluid material. The attachment between the dura mater and the membrane was so slight that a separation was easily effected by gentle enucleation. A closed sac containing six ounces of brick-dust colored diffluent material was now brought into view. This sac had no connection with the arachnoid, but simply rested upon the left hemisphere, which it had compressed to fully half its usual volume. The posterior extremity of the sac was attached so firmly to the lateral sinus, near its junction with the jugular vein, that the scalpel was required to separate it. The sinus upon this side was smaller than normal, and contained a fluid precisely similar to that found in the sac. No connection, however, could be traced between the two cavities. The jugular vein, after its exit from the skull, appeared to be normal. The sinuses on the right side were greatly distended and empty.

This hæmatoma, a dried specimen of which I present, covered the whole of the upper and outer portion of the hemisphere, but did not encroach upon the base. Its upper surface was rotund, corresponding to the curve of the calvarium; its under surface flattened, and marked with depressions caused by the cerebral convolutions.

A microscopical examination of the contents of the sac revealed the débris of disintegrating blood. The sac-wall was found to consist of fibrillated fibrine. Notwithstanding Virchow's theory of the origin of these hæmatomata, it is difficult to account for the condition of things shown in this case upon such a supposition. The fact that the sac-wall was only slightly attached to the dura mater; the fact that the adhesion was very firm between the sac and lateral sinus, and that the contents of the two cavities were identical; and the fact that there was no evidence of a proliferation of connective tissue, or of the presence of vessels in the false membrane, would seem to point to a rupture of the sinus, and not to pachymeningitis as the source of the hemorrhage. It seems probable, however, that the blood-sac found in the pleural cavity may have had its origin in a form of inflammation analogous to pachymeningitis hemorrhagica.

The Society then went into executive session.

Stated Meeting, April 26th, 1871.

Dr. A. L. Loomis, President, in the Chair.

CUTANEOUS CANCER.

Dr. Finnell presented, on behalf of Dr. Charles Phelps, an amputated leg from a patient at St. Vincent's Hospital. The disease first showed itself about three years ago, in the integument of the central portion of the limb over the tibia, and from that time commenced gradually to extend until it covered a circumference equal to two-thirds of the space between the knee and ankle joints. The specimen was a rare one, from the fact that the disease was confined entirely to the integument.

TRAUMATIC RUPTURE OF SPLEEN.

He next exhibited the spleen, kidneys, and heart removed from the body of a woman aged sixty-five, who was struck in the left side of the chest by a case of goods descending through a hatchway. She immediately complained of a good deal of pain at that point, and gradually sank under it for two weeks, when she died. The owners of the hatchway, being called to account, claimed that death had been caused by intemperance. The autopsy, however, made at the instance of the Coroner, showed that death was really the result of a rupture of the spleen. The organ was rent for six inches in a longitudinal direction, and a large amount of effused coagulated blood was found in the fissure. The kidneys showed also extravasation of blood. The heart was exceedingly fatty. From her gall-bladder were removed two biliary calculi, one of the size and shape of a marble, smooth on its exterior; the other much smaller and covered with facets.

SUDDEN DEATH FROM INJURIES OF THE ABDOMEN.

There were no evidences of any external injuries. In referring to the latter point, he believed it was not unusual for fatal injuries of the abdomen to exist and yet show no bruises upon the surface. Such was the case, for instance, in the recent affair in which a policeman foolishly and thoughtlessly struck a drunken brawler across the abdomen with a club. It will be recollected that the injured man died soon after reaching the station-house. Death in this case was no doubt caused by a shock; but this shock was intensified in its results by the previous debilitated state of the deceased, he having led a life of dissipation. Dr. F. believed that many cases of sudden death could be more satisfactorily accounted for by such a supposition than by the fashionable verdict of congestion of the brain. The point of interest to him was whether, as a rule, such cases presented any marks of external injury on the one hand, or any internal extravasation on the other—anything more, in fact, to account for death than the mere shock to the great sympathetic.

Dr. Flint recalled a circumstance in point:—Two waiters in a hotel were engaged in a playful scuffle, in the course of which one gave the other a gentle tap upon the epigastrium, when death ensued almost instantly. There were no marks of external injury.

Dr. Finnell had seen similar results follow the kick of a horse; but in a great majority of such cases there was some extravasation.

Dr. Van Geison alluded to a case which had some bearing upon the fact in a medico-legal point of view. A couple of Germans were celebrating a birth-day, and having drunk freely of lager beer, were aroused at 3 o'clock by a party bent on a disturbance. A slight fracas was the result, after the German fashion—a great deal of loud talking, but no very hard blows. The disturbing party was said to have been struck by a hammer at a point corresponding to the apex of the heart, death resulting twenty minutes afterwards. Both the brothers were indicted for manslaughter, and he was called upon to testify for the defence. The question was, How far was that blow instrumental in causing death? The autopsy was very negligently made, and only the cavity of the chest had been examined. The verdict of the coroner's jury had been death from paralysis of the heart. The whole history of the case pointed, however, to apoplexy as the real cause of death. The deceased was fifty years of age, had been a very hard drinker, had had secondary syphilis, and his arte-

ries were probably in an atheromatous condition. If the brain had been examined, all doubts would have been dispelled; as it was, however, the jury refused to be satisfied, and both brothers were found guilty of manslaughter.

EXSECTION OF HEAD OF FEMUR FOR MORBUS COXARIUS.

DR. SAYRE exhibited several specimens of exsection of the head of the femur for morbus coxarius. The first was from a child four and a half years old, who had suffered from hip-disease for two years, at the end of which time it exhibited all the characteristics of the third stage. The disease was caused by a fall down a flight of stairs.

DR. SAYRE saw the case for the first time April 2d, and then opened a large abscess. On account of the size of the latter, the operation for exsection was postponed until the 22d, in order to give the sac a chance to retract. The head of the femur was found lying loose in the cavity, and the unhealthy portion of the cervix was removed by the saw. The child was placed in wire breeches, and in the course of the next twenty-four hours was well enough to be driven out to take the air in Central Park. Since then there had not been an untoward symptom. The point of interest was the speedy and satisfactory recovery of the patient.

A second specimen was from a child five years of age, sent to Bellevue by Dr. Dunster. The case had advanced to the third stage. The head of the femur was removed on the 23d of February. An attempt was made to adjust the wire breeches; but not having a pair to fit, Dr. ——— placed the child on its belly, and made a plaster-cast of the back and posterior portions of the lower extremities, by which means the hip was kept perfectly steady and the patient made comfortable.

A third specimen was removed on the 28th of February, from a boy nearly nine years of age. His case had likewise advanced to the third stage. The disease was the result of a fall from a wagon two and a half years before. After the operation the wire breeches were used. The wound was nearly healed ten or twelve days ago. The only drawback was a bed-sore on the sacrum and on the back of the heel. There was very little shortening in the last two cases.

DR. FLINT asked if Dr. Sayre had found any connection between morbus coxarius and pulmonary phthisis, in regard to cause and effect; whether, in a word, there was any special liability to phthisis when the matter was so long pent up as it must have been in these cases.

DR. SAYRE replied in the negative, and stated that he had performed in all thirty-nine operations, with eight deaths. In only two was there any tuberculous disease of the lungs found post-mortem. Nine of the thirty-one are living, and have as yet shown no signs of phthisis.

SWALLOWING OF A PIN, ETC.

DR. F. V. WHITE presented a pin an inch and a quarter in length, which had traversed the alimentary canal of a girl seven years of age. The little patient had been playing with a spool and a pin, and had accidentally swallowed the latter on the 11th of February last. Aside from a slight difficulty in deglutition, there was no other evidence of serious inconvenience. The mother administered a dose of castor-oil, and the discharges were watched. Nothing appearing, a second and a third dose of the oil was administered, when the pin made its appearance, sixty-nine hours after being swallowed, lying longitudinally in a mass of fæces, with its head downwards. In connection with this case he referred to a rather remarkable one (*Med.-Chirurg. Trans.*, vol. xxvii., *New Series*, p. 5), which he had met with in his reading. The patient was seven years of age; had been troubled for four years with great difficulty in urinating, and had finally died without a diagnosis. At the autopsy the vermiform appendix was found adherent to the right side of the bladder, and in the cavity of the latter was found a stone which had for its nucleus a pin. This pin was supposed to have been swallowed, to have found its way into the vermiformis process, and thence by contiguous ulceration into the bladder.

In conclusion, he asked what was the best treatment for such cases, to insure the safe passage of the foreign body.

DR. FLINT thought that generally cathartics were counter-indicated, it being safer to leave the case to nature, and administer as much solid food as the patient would take.

FISH-BONE IN LARYNX.—THE UTILITY OF LARYNGOSCOPE.

DR. VAN GEISON presented a small fish-bone, which he had removed from the top of the larynx of a lady who came into his office five weeks before, suffering from extreme dyspnœa. He immediately made a laryngoscopic examination, and detected the foreign body lying diagonally across the top of the larynx, just ready to drop into the box below. She was directed to keep perfectly quiet, when the bone was removed with an ordinary dressing-forceps. The practical lesson to be drawn from the specimen was, that every physician should be sufficiently skilled in laryngoscopic examinations to be ready for such emergencies. He was convinced, from the position of the fish-bone, that it required a very short time, or a very little change in position, to have placed it beyond the immediate reach of the operator, in which case the melancholy history of a patient recently reported by Dr. Buck, in which tracheotomy had to be performed after four years of great suffering, would have been repeated.

DR. LOOMIS presented a heart, with the following history, from Dr. Milliken, House Physician of Bellevue:—Henry Clemens, admitted April 11, 1871, æt. 32; single; cabinet-maker by occupation; nativity, Switzerland.

Patient gives hereditary history of pulmonary phthisis. Had an attack of acute articular rheumatism when 17 years of age, from which he made a good recovery. States that neither at that time, nor since has he experienced any præcordial pain; but has noticed that, after indulging in tobacco (for he has been an inveterate smoker), he would suffer from palpitation of the heart. He has had a cough, dating some time back, with some expectoration of a pearly-white material, which he says he coughs up at night, at which time his cough distresses him most. About two weeks ago, for the first time, he noticed that the sputa was streaked with blood. His cough remained about the same in character until one week ago, when he experienced a severe paroxysm of coughing, which was instantly followed by hæmoptysis, which continued for two or three days. Since the occurrence of hæmoptysis he has had night-sweats, loss of appetite, depreciation of strength, and experienced a feeling of general malaise and inaptitude for any kind of work. He complains also of insomnia and restlessness; and, though he is up and about, his haggard countenance and relaxed look speak well of the enfeebled tone of his general strength. His pulse is about 80, regular, but quite feeble; respiration somewhat hurried, but easily performed.

HEART DISEASE WITHOUT MURMURS, ETC.

Some depression in both infra and supra clavicular spaces. Both sides of the chest move synchronously

with respiration. Dulness under both clavicles. Breathing under left clavicle has a hollow intonation, accompanied by large metallic râles. Breathing under right clavicle seems high in pitch, and prolonged. Vocal fremitus increased at left apex.

Posteriorly.—Crepitant and sub-crepitant râles distinctly heard over left side, with rude breathing. Breathing is exaggerated over right side.

Heart.—Action regular, but quite feeble. Apex-beat on a level with nipple in fifth interspace. Heart-sounds feeble; after repeated examinations, no murmurs could be detected.

He was then put upon tonics and an anodyne cough-mixture.

April 15, 7 P. M. While at dinner he became suddenly unconscious, and fell from his chair. Breathing became stertorous; muscles in tonic spasm; eyes rolled back, sclerotic only remaining visible; left pupil somewhat dilated, reacting very slowly to light; right pupil normal. He was then carried to his bed, when he was found to have right hemiplegia, right facial paralysis, with complete insensibility to pain on that side of his body; retention of urine and constipation of bowels; right lateral half of the body was found to be cold, while the left side was warm and perspiring. There was great difficulty in swallowing fluids. Pulse 120, and full; temperature, 104°. Urine was not examined.

April 16, 11.30 A. M. Patient groaned and muttered during the entire night. There is some froth about his mouth. Pulse 120, and feeble; temperature, 102°. Incontinence of urine. Complete abolition of sensation on right side, although to-day he has moved the right leg a little. Right arm and right side of face remain completely paralyzed. Both pupils the same to-day.

April 17. Consciousness has returned, although at times he is aphasic. Answers questions slowly. Skin hot and dry. Moves his right leg more than on the previous day. Right arm and face still paralyzed. Laughs on the left side of his face. Swallows with difficulty.

April 18, 10 A. M. Patient is somewhat delirious and very restless; there is some rigidity of the muscles of right arm. Condition growing worse. Pupils about the same. 6 P. M.—Muscles of both arms rigid; flexors greatly predominate over extensors; thumbs drawn in palms of hands. Urine retained; bowels obstinately constipated; subsultus tendinum, hiccough tracheal, râles. Eyes rolled back in their orbits; conjunctivæ congested; mouth wide open. Died 9 P. M. same day.

Autopsy.—Brain.—Weight, 2 lbs. 14 oz.; sub-arachnoid fluid, 50 cubic centimetres; sero-lymph in meshes of pia mater, at convexity and base; 5 cubic centimetres of opalescent fluid in ventricles. A reddish clot blocks up middle cerebral artery of left side, ¾ inch beyond origin, commencing ¼ inch behind bifurcation of said artery. Length of clot, ¾ of an inch. In either branch its color is reddish gray. Left corpus striatum and portion of white matter around it is considerably softer than the rest of the brain tissue. Nothing else special about the brain.

Heart.—Weight, 14 oz. Both right and left cavities contain large clot of blood; substance of heart relaxed. Stenosis of mitral orifice—only admits little finger; some shortening of chordæ tendineæ. The stenosis is due particularly to the thickening, shortening, and adhesion of the chordæ tendineæ of the valve. The anterior portion valve forms a bony mass occluding that portion of the orifice. On the auricular aspect the surface of the valve is ulcerated, the bony matter laid bare, and soft reddish vegetations on the free border of the valve and upon the ulcerated surface. Pulmonary and tricuspid valves normal. Little thickening at base of aorta.

Lungs.—Right one adherent; left one coated with recent exudations. Greater part of upper lobe in state of red hepatization anteriorly; posterior part of upper and lower lobe of right lung is firm, of reddish-brown color, not granular. Slight amount of serum; does not give way under finger (from induration).

Kidneys, 4½ by 2. On surface of left one are a few small cicatrices, with atrophy of cortex; one small yellow infarction. Kidney tissue normal.

Liver, 13 by 6. Slight nutmeg appearance.

Spleen, 5 by 3. Soft; otherwise normal.

The case is of special interest—1st. Because with this marked stenosis no murmurs existed; and 2d. That there should be such marked symptoms of apoplexy without any lesions to account for the same.

Dr. Flint remarked that the absence of murmurs might be accounted for:—1. On account of the rigidity of the valve not allowing a vibration; and, 2. The smoothness of the ventricular surface of the valve.

Dr. Loomis, in answer to a question from Dr. Flint, remarked that he (Dr. L.) had forgotten to state that the kidneys were not much diseased, and contained only two or three infarctions.

Dr. Van Geison asked how the remark made by Dr. Loomis to the effect that the patient had a "full hereditary history of pulmonary phthisis," coincided with that gentleman's expressed views as regarded the new doctrine in vogue.

Dr. Loomis remarked that he did not believe that tuberculosis could be inherited *per se*, but that there was a transmission of the hereditary vices of constitution which permitted of the occurrence of an inflammation of the peculiar character which preceded, or rather invited, cheesy degeneration.

Stated Meeting, May 10, 1871.

Dr. A. L. Loomis in the Chair.

ANGINA PECTORIS.

Dr. Finnell exhibited the heart, kidney, and portion of the apex of the lung of a German physician, who died at the age of 64. For several years he had been afflicted with angina pectoris. He had tried all sorts of medication, and finally in desperation resorted to whiskey, of which he would drink large quantities. He finally died rather suddenly. A certificate was rendered of nervous apoplexy, which not satisfying the coroner, an autopsy was ordered. Both kidneys were imbedded in fat, and were granular. The heart showed very little change, with the exception of a slight thickening of the coronary artery and the margins of the aortic valves. There were deposits in the apices of both lungs.

EPILEPSY AND INDURATION OF CEREBELLUM.

Dr. F. presented a second specimen, a portion of the cerebellum taken from the body of a colored man 52 years of age. For several years past he had been the subject of epileptic attacks, and just previous to death he had fourteen fits in the space of two hours. The autopsy revealed a marked anæmic condition of the brain and a slight induration of the cerebellum.

SCIRRHUS OF ABDOMEN.

He next exhibited a specimen removed from the body of a woman 54 years of age, married and childless. For the past three years she had been suffering from abdominal pains, which were accompanied by the appearance of a tumor in the left side. She had suffered besides with umbilical hernia for over thirty years, and the truss which she had worn the most of that time had produced considerable induration at its points of

contact. The case was looked upon by some as an ovarian tumor of the left side. Dr. F. saw the patient during life, and was inclined to the same opinion. While the patient was being prepared for the preliminaries of tapping she died. At the autopsy the abdominal cavity was found more or less filled with a serous fluid, the result of a serous inflammation caused by a scirrhous mass on the right side. It was sub-peritoneal, and seemed to involve the sub-cellular tissue principally, and to some extent the abdominal muscles. It seemed to have had its origin in the umbilical irritation.

ADHERENT PERICARDIUM AND ITS RELATION TO SUDDEN DEATH.

The fifth specimen was a heart taken from the body of a colored man who, after having rheumatism at different times for several years, died suddenly at the age of 42. No other lesion than a completely adherent pericardium was found at the autopsy. So close was this adhesion that the membrane seemed as if a part of the heart itself. The question was, whether this adherent pericardium had anything to do with the cause of death.

Dr. Loomis did not think it had.

Dr. Lente, who was of the same opinion, related two cases in point. During the war there was a cadet at West Point who, when half through his course, was seized with symptoms of cardiac disease, which eventually became so marked and annoying that he was compelled to give up in turn the horseback exercise, double quick, and even the ordinary drill. Dr. Lente was requested by some of the friends to see the patient, which he did in company with the post surgeon. The evidences of severe cardiac disease were very marked on auscultation. Although it was evident that he would be incompetent for active service, it was thought best to allow him to pursue his studies in the prospect of being fit for office duty. He graduated, and was appointed on Gen. Sherman's staff; while serving thus he was shot through the right chest, the ball passing from the epigastrium to the shoulder through the liver and lung. He, however, recovered from this, although his right side was more or less disabled. He came on a visit to the country, and while riding a fractious horse, being unable on account of his wound to manage him, was thrown and almost instantly killed. At the autopsy the pericardium was found universally adherent. This condition did not, however, have anything to do with the patient's death.

Dr. L. also had a case in a child who had been examined by Dr. Cammann, and was pronounced to have heart disease. The patient finally died with some acute chest affection, and at the autopsy an adherent pericardium was found.

Dr. Loomis remarked that it was not uncommon to meet with such cases, in which an adherent pericardium had nothing whatever to do with the cause of death.

Dr. Janeway remarked that death might occur in such cases as the result of the fatty degeneration of the heart substances underlying the pericardium.

Dr. Lente exhibited a proliferous mammary cyst, which he had removed from a patient who had been suffering from the disease for three or four years.

AMPUTATION IN CONTINUITY IN CASES OF PROGRESSING OSTEO-MYELITIS.

Dr. Hamilton presented two limbs which were amputated in continuity, showing the effects of such a practice in cases of progressing osteo-myelitis.

In the first instance the man was injured two years ago in the ankle-joint, sustaining a comminuted fracture of the tibia, of the fibula, and of the metatarsal bones. Dr. H. performed Syme's amputation six months ago. The wound never healed entirely, and about a month after the operation the patient began to complain of pain in the tibia, which continued to increase until it became intolerable. The symptoms of osteo-myelitis soon became declared, and amputation was advised. Dr. H. at first thought of removing the limb at the knee-joint, in pursuance of the rule not to amputate in continuity. But, believing that the disease might be arrested before it had proceeded far up the bone, he determined to remove the limb below the knee, if possible. With this end in view the point of section was made in the upper third, two and a half inches above the diseased point. The case progressed very favorably, and recovery was complete.

Specimen Examined Twenty-four hours after Operation.—"The soft parts were greatly condensed and thickened, cutting almost like cartilage. Three large deep ulcers extended quite down to the periosteum. No loose or exposed bone was found anywhere. A deep sulcus and exuberant ensheathing callus around both tibia and fibula, uniting the two bones firmly, showed the original seat of fracture near the junction of middle and lower thirds. Long axis of upper fragment of tibia was displaced outwards.

"A firm hard mass, about two inches broad by one thick, enclosed in dense fibrous tissue, occupied the situation of the removed os calcis. This, on section, proved to be firm, dense, newly-formed bone, composed principally of cancellous tissue. Between it and the end of the tibia was a small well-defined cavity, containing a dark-reddish pultaceous material. The sinus in the original line of incision communicated with this cavity.

"On the posterior and external aspects of the lower end of the tibia (which was considerably expanded) was a regular smooth mass of newly deposited ossific matter of a deep-red color, and containing large channels for vessels, readily seen on removing the periosteum. The line of separation between the new and old bone was well marked and distinct.

"On section of the tibia longitudinally, the whole medullary canal was found filled up with a soft pulpy mass, extending up to about three inches below the point of section. A well-marked subperiosteal ossific deposit on contiguous surfaces of tibia and fibula ceased at the same point. The medullary canal at point of fracture was completely filled up with internal callus. The bridge of bone uniting tibia and fibula at point of fracture was quite dense and eburnated. Just above the point of fracture the tibia seems to be simply expanded, no new periosteal deposit having taken place.

"The periosteum was greatly thickened and adherent throughout."

From the date of the operation the patient has been completely relieved of pain, and he is now, April 27, well.

A second specimen of the same sort was the result of an amputation. The operation was performed about the same time below the knee-joint. Following the amputation the patient suffered a great deal of pain in the lower end of the femur, which extended itself up towards the hip. Finally an opening showed itself as high as the trochanter major. Exploring this with a probe, bare bone was found. It was evident from the intense pain and the other symptoms, that the patient was suffering from osteo-myelitis. A consultation was also had in this case, and the question arose whether it would not be necessary to amputate at the hip-joint. Considering the usual fatal results of that operation, Dr. Hamilton took the responsibility, when the patient was brought on the table, of deciding to make the experiment by an amputation through the diseased structure.

The section was made three inches above the condyles, leaving the bone at the point of amputation apparently as much diseased as below. The patient was relieved immediately, and also completely recovered.

The specimens had an important clinical interest, not only as regards the result, but as regards the manner in which the result was obtained.

Dr. Markoe endorsed the practice as a good one, and could see no reason why the same rules should not be followed as regards bone as obtained with the soft tissues. He had had occasion to illustrate this principle of treatment in some inflammatory diseases of bone, although he never had precisely such cases as were reported by Dr. Hamilton.

Dr. Sayre remarked that he had in several instances carried a seton through the whole length of the bony canal, and with excellent results, keeping up a constant discharge for many months at a time.

CALCULUS REMOVED PER URETHRAM.

Dr. Little presented fragments of a calculus removed per urethram from a girl four years of age. She had suffered from symptoms of stone for five months. She was then sent to St. Luke's Hospital. The urethra was dilated with a conical pointed bougie, so as to admit a No. 12 sound. A lithotrite was then introduced, Dec. 19, and the stone, an inch in diameter, was seized and crushed. Very few fragments passed after the first operation. The second seizure was made Dec. 29. Small fragments were removed at this time by the ordinary dressing forceps, and without any laceration of the canal. July 11 a third seizure was made, and Feb. 9 a fourth. Recovery was complete, and uncomplicated with any incontinence of urine.

REMOVAL OF TESTICLE.

The second specimen was a testicle removed by operation from a patient twenty-seven years of age. Six or seven years ago, while in the army, he "strained" his testicle while jumping over a fence. Since that time, after a smart attack of inflammation, the organ gradually enlarged until it attained the size of the double-fist. The specimen had not been examined, and was referred to the Committee on Microscopy.

ALVEOLAR SARCOMA OF SHOULDER.

A third specimen was a tumor of the shoulder, also removed by operation. The patient was a female, aged 45. A year and a half ago she discovered a movable growth in the right axilla, which gradually increased in size until March 31, when she was admitted into St. Luke's Hospital. At that time the tumor extended from the axilla backwards upon the shoulder, and forward under the axilla. Its circumference at its base was 19 inches; from its inferior in axilla over its summit to the superior border, 11½ inches. There was some doubt at the consultation as to whether it was attached to the bone or not. It was thought best to cut down and perform an explorative operation, and remove the tumor if it proved to be warrantable. The mass was found to be capsulated, and disconnected with the bone. A flap was made by incisions along the anterior border of the deltoid, under the clavicle, and along the anterior border of the axilla. The tumor was found, on examination, to have been developed in the substance of the coraco-brachialis and the short head of the biceps. Dr. Delafield examined the specimen microscopically, and pronounced it alveolar sarcoma. The tumor weighed two pounds. Adjourned.

Stated Meeting, May 24, 1871.

Dr. A. Loomis, President, in the Chair.

ENTEROLITE.

Dr. Rogers, on behalf of Committee on Microscopy, made the following report:—

The specimen of substance which had produced fatal obstruction of the bowel, presented at a recent meeting by Dr. Lente, has been carefully and repeatedly examined by the committee.

It will be remembered that it is ovoid in shape, and when presented measured about one by one and three-fourth inches in its diameters. It also will be recollected that it presented numerous deep and gaping fissures reaching from the surface down to, and exposing, a nucleus. When slightly warmed it furnishes a decided though not strong stercoraceous odor. Its color on the surface is chestnut, its deeper portions varying from nearly white to nearly black, generally a lightish brown. The nucleus is nearly one-third of an inch in diameter, is of calcareous hardness, very dark brown, and when thrown into dilute nitric acid dissolves in part, with effervescence, leaving a residue which is totally insoluble in water, but which is mostly soluble in alcohol, producing a very dark green tincture.

The mass of the specimen is formed by numerous concentric layers about this nucleus, while at the same time there is a radical plan observed in its formation, so that it fractures in straight lines from the centre to the circumference. This portion of the formation is to a great extent dissolved by alcohol, leaving a dark-yellowish residuum which has no definite formation, and is soluble in neither acid, alkaline, nor hot nor cold ethereal fluids, such as alcohol, chloroform, and sulphuric ether.

When the alcoholic solution, which has an amber color, is allowed to slowly concentrate, it deposits a considerable amount of a fine white crystalline substance, which, if examined by the microscope, is shown to be made up of two leading forms of crystals, the one a tabular and notched crystal so characteristic of *cholesterine*, the other long prismatic or beam-like crystals, said to characterize *excretine*.

It is totally unaffected by water or glycerine, and but very slightly soluble in chloroform; insoluble in acids, and very slightly soluble in ether. Liquor potassæ affects it somewhat by removing a certain portion of fatty principle. When burned, its smoke emits a faint but not disagreeable odor of burning animal matter, and a black copious ash remains, which is partially dissolved, with effervescence, by dilute nitric acid. Its marked diminution by drying, shown by the fissures and the properties above described, indicates the specimen to have been an intestinal formation, an *enterolithus* or *enterolite*. Its nucleus may have been some substance taken with the food, some article of medicine, perhaps a pill, or possibly a concretion of biliverdin, but its true composition the committee have not been able to ascertain.

FIBROMATA UTERI CAUSING MISCARRIAGE.

Dr. Finnell exhibited the uterus of a colored woman aged 36, in whom death was caused by uræmic convulsions. She had aborted several times at the fifth month, the last miscarriage having occurred shortly before death. The kidneys were found to be waxy. The uterus contained several good-sized fibromata, one of which encroached very considerably upon the cavity of the organ. He was inclined to the belief that this latter condition of things had not a little to do in bringing about the miscarriages referred to.

Dr. Loomis had seen a woman go to full term who

had a multiple fibromata of the uterus, as did also Dr. Chamberlain. In the latter case the woman died of some other disease, and seventeen distinct tumors were found, but they were almost all subperitoneal.

HYPERTROPHY OF HEART.

Dr. Finnell exhibited a second specimen—an hypertrophied heart removed from the body of a baker aged 36. He was never known to have had rheumatism, and was considered to be a fine healthy man. His death was very sudden, and occurred while he was bending over his trough and kneading dough. The heart was found much hypertrophied and considerably dilated, the left ventricle being mainly affected. The mitral valve contained calcareous patches, and the margins of the aortic valves were much thickened. The heart weighed twenty-four ounces. The verdict was death from heart disease. In answer to a question, he stated that the brain had not been examined.

THE LIABILITY OF LIFE INSURANCE COMPANIES.

Four years ago the employer of this man presented him with a life insurance policy of a thousand dollars, and the question came up whether the company could contest the widow's claim on the plea that the applicant was diseased at the time the insurance was taken.

Dr. Sands thought that such a step, if it were taken, would establish a dangerous precedent. If the applicant applied in good faith, and passed the necessary medical examination, the insurance should be paid. If there was any responsibility connected with the transaction it rested upon the medical man who examined for the company. His opinion was concurred in by Dr. Sayre.

Dr. Finnell thought it probable that the hypertrophy existed longer than four years, and that the area of precordial dulness must have been greatly increased at the time of the examination.

Dr. Sewall did not think it possible that any life insurance company of good standing would dare to take such a course; not only would a nonsuit be entered but their future business would suffer in consequence.

Dr. Janeway did not think that four years was too long to produce the hypertrophy. The dilatation greatly predominated, which would occasion aortic regurgitation; which condition would doubtless lead to a fatal result. But this opinion could not be a positive one without any examination of the brain.

CANCER OF STOMACH, ETC.

Dr. Finnell next presented a series of specimens removed from a man aged 75 who had died of cancer of the stomach. The patient entered St. Vincent's Hospital with the symptoms of jaundice and difficult deglutition. A large fluctuating tumor was noticed in the left inguinal region, but no opinion was formed as to its true character or its origin. The symptoms of gastric irritation with which he suffered in company with jaundice were referred to this growth as the cause. He died at the end of seven days after admission. At the autopsy the tumor was discovered to be a cyst springing from the lower portion of the kidney. It contained over a quart of clear fluid. There was also a large cancerous ulcer at the pyloric orifice of the stomach, and that portion of the organ, together with the liver and surrounding parts, was involved in the disease. The gall-bladder contained over seven hundred biliary calculi, resembling a quantity of ground coffee.

Dr. Finnell did not recollect having seen so large a solitary cyst of the kidney.

Dr. Janeway had presented one such cyst very nearly as large, having its origin in an extravasation between this organ and its capsules.

LUMBAR COLOTOMY.

Dr. Erskine Mason presented a specimen illustrative of one of the effects of lumbar colotomy. The patient was a woman 39 years of age, who had suffered from venereal stricture of the rectum for the past two years. When she first came under Dr. Mason's care he discovered a very tight annular stricture about one inch above the anus. This he attempted to dilate with bougies, but failing to accomplish much, he divided the stricture on the 2d of July, 1870, with Cooper's hernia knife. After this he dilated with his finger, then passed a bougie, but on withdrawing the latter he met with a resistance which on examination proved to be caused by another stricture an inch higher, and spiral in form, extending a distance of two inches. This was notched with the knife and then dilated rapidly with bougies until the largest bougie could be passed with facility. This relieved her condition very much. Bougies were introduced at intervals of three or four days, Her diarrhœa and pain, from which she had suffered, abated.

About this time she was suffering from some uterine disturbance, when she was transferred to the medical wards. For some reason or another the use of the bougies was discontinued. After the lapse of a month it was noticed that the constriction again returned, and when at the end of that time she came again in Dr. Mason's hands, rupture was resorted to for a second time. He last saw her to make an examination last March. She was then suffering agony; the stricture had returned, and just allowed the introduction of the end of the index finger. The rectum for a distance of three or four inches was ulcerated. Lumbar colotomy was advised as a last resort. The patient was a very intelligent woman, and having been a medical student withal, was well informed in regard to the operation, was well acquainted with the necessary steps of the same, and, in fact, urged its performance. In the following April Dr. Mason again came on duty, and Dr. Budd, who then had charge of the patient, kindly transferred her. Her condition was no better. She had been taking large quantities of opium, and that, together with the pain, began to tell upon her nervous system. She had suffered considerably from profuse diarrhœa, but this was afterwards checked.

The operation for lumbar colotomy was performed May 8th, after Amussat's plan. She was placed under ether. Two or three quarts of water were thrown up the rectum, and a tampon introduced to prevent regurgitation. A pillow was then placed under the right side. The rules for finding the colon, as laid down by Mr. Allingham in the last volume of St. Thomas's Hospital Reports, were strictly observed. It will be recollected that he has described the results of a large number of experiments upon the cadaver to prove the accuracy of his plan. He takes the two points, the anterior superior and the post superior spinous processes of the ilium, then, when midway between the two, makes a point half an inch posterior to this, and then comes down directly upon the colon. Before operating, Dr. Mason verified the proceedure in three or four cases upon the cadaver, and in two other instances since the death of the patient. The woman was very well developed, and there was considerable adipose tissue to divide. After cutting through the quadratus lumborum muscle he came down upon the lumbar fascia directly underneath, which was a portion of intestine very much distended. When the fascia was divided the characteristic

greenish hue of intestine was plainly recognized. The intestine was carefully examined, and Drs. Wood and Watts, who assisted, thought with Dr. Mason that they recognized some of the longitudinal bands of the colon. Having made out those points to their satisfaction, Dr. Mason introduced two sutures, one above and one below, and drew the intestine up into the wound. The intestine was then divided longitudinally for the distance of perhaps half an inch, when, to their great gratification, out gushed a fluid which was believed to be the injection previously administered. This being done, the edges of the gut were stitched to the wound. The patient went on very well until the following Thursday (May 11). At 11 o'clock that night, while being moved from one bed to the other, she complained suddenly of a pain in the back, and this continued more or less until Friday 3 P.M., when Dr. M. saw her. To his surprise he found her with an anxious expression of countenance, hands, arms, and face quite cold, respiration thoracic and very rapid. He at once concluded that pus from the wound had made its way into the peritoneal cavity. The sutures were accordingly removed, but the wound was found to be firmly united throughout the whole of its extent. Two teaspoonfuls of pus were then evacuated, affording the patient much relief. The wound was erysipelatous. He saw her again at 9 P.M., when she was passing rapidly into a comatose condition. Then the erysipelas had extended itself along the back, and the edges of the wound presented the appearance of commencing hospital gangrene. She died two hours afterwards, four days and eleven hours after the operation. During the last five hours of her life she had complete suppression of urine.

Autopsy made by Dr. Janeway, thirty-seven hours after death. Rigor mortis almost wanting. Skin slightly jaundiced. Edges of wound everted and presented a gangrenous appearance. Blood throughout the body black and fluid. Upon opening the abdomen, no general peritonitis was found; the cavity contained about three ounces of bloody serum. Peritonæum covering the spleen was adherent to the diaphragm by old adhesions. The lower end of the great omentum was bound down in the pelvic cavity by old adhesions to the uterus, thus pulling down the transverse colon and its splenic flexion—the latter towards the median line, so that its course lay over the anterior border of the kidney. The descending colon, instead of occupying its normal position, lay over the hilus of the kidney and outer border of the psoas muscle; was empty and contracted. There was a clean transverse opening through the peritonæum half an inch above the crest of the ilium, an inch and a half in length; through this opening a knuckle of the jejunum passed, and was stitched to the skin on either side of an opening corresponding to the inner one. This portion of jejunum was eight inches from the duodenum. The peritonæum covering this portion of the intestine for four inches upwards and eight inches downwards presented evidences of recent inflammation. These portions of intestine had become adherent to one another and to the peritoneal opening, so as to close the latter. The mucous membrane of the jejunum at the artificial opening was simply congested. There was no evidence of peritonitis around the opening. Ascending portion of the duodenum was adherent to gall-bladder by old adhesions. The uterus was adherent to the rectum, closing Douglas's *cul-de-sac*. She evidently at some time has had puerperal peritonitis. Microscopical examination of kidneys showed blood effused in a few Malpighian bodies. The latter were granular, in some their capsules were thickened. In the convoluted tubes the epithelium was granular, increased in size, nearly filling the tubes, but intact. Straight tubes; epithelium detached, showing in some places the tubes almost entirely denuded. The stroma showed increase of connective tissue, with some free oil globules. The liver structure showed the liver-cells large, granular, and fatty.

The points of interest in the case were summed up as follow:—

I. The false position of the jejunum, so enormously distended, and the non-appearance of a knuckle in the wound.

II. The abnormal position of the colon

III. No peritonitis immediately around the wound; and—

IV. The relief of rectal pain after the operation.

Dr. Janeway thought that in a similar case a diagnosis might be made by examining the fluid contents of the gut chemically for biliary acids.

Dr. Janeway exhibited a specimen of intussusception occurring in an adult male in conjunction with scurvy. It was situated fifteen feet from the ileo-cæcal valves, and its occurrence was evidently from above downwards. The patient died with pleurisy and effusion, pneumonia and scurvy. It was evident from the congested appearance of the invagination, and of the effusion of blood below it, that the accident occurred at least twenty-four hours before death.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from July 19, 1871, to August 4, 1871, inclusive.

Miller, G. McC., Assistant Surgeon.—By S. O. 154, Headquarters Department of the South, July 20, 1871, to proceed with command from Montgomery, Ala., to Atlanta, Ga., and report thence by letter to these Headquarters.

Cronkhite, Henry M., Assistant Surgeon.—By S. O. 278, c. s., War Department, A.G.O., relieved from duty in Department of Texas, to proceed to New York City, and, upon arrival there, report by letter to the Surgeon General.

Pope, Benj. F., Assistant Surgeon.—By S. O., 293, War Department, A. G. O., July 29, 1871, to report to the Commanding General, Department of the South, for assignment to duty.

Wilson, Wm. J., Assistant Surgeon.—By S. O. 278, War Department, A. G. O., July 18, 1871, relieved from duty in Department of Texas, to proceed to New York City, and, upon arrival there, to report by letter to the Surgeon General.

Hall, Jno. D., Assistant Surgeon.—By S. O. 187, Headquarters Department of Dakota, July 14, 1871, upon being relieved by A. A. Surgeon McChesney, at Cheyenne Agency, D. T., to proceed to Fort Shaw, Mon. T., for duty as Post Surgeon.

Harvey, P. F., Assistant Surgeon.—By S. O. 144, Headquarters Department of Texas, July 14, 1871, assigned to duty as Post Surgeon at Fort Quitman, Tex., and by S. O. 145 C. 5. Department of Texas, granted leave of absence for thirty days, with permission to leave the limits of the Department.

Medical Items and News.

Cholera.—The cholera is prevailing to an alarming extent in some of the Baltic ports. It has also carried off many victims in Poland, Prussia, Gallicia, and Hungary. Cases have also occurred in Hull, whither it has been brought by emigrants from North Germany on their route to America.

The latest advices state that the disease has declined in St. Petersburg, though it would appear to have increased in Moscow, and to be extending its ravages in a southward direction. The disease is reported to have again made its appearance at Teheran and other places in Persia, and the deaths in Teheran to have reached ninety *per diem*. The disease has also appeared in the south of France, and one case has occurred in Hull, England.

The American Dental Association held its annual meeting, August 3d, at White Sulphur Springs. Dr. Harriman, of Boston, read a paper on the formation of teeth, showing them to be fibrous. The views expressed caused some surprise and considerable comment, being regarded as a bold departure from old established theories. A discussion then followed on Dental Histology, and was participated in by Drs. Atkinson, Judd, McQuillay, Harriman, and Walker. The report on Dental Therapeutics was followed by a paper on the same subject by Dr. Bogue, and a discussion by Drs. Toft, Judd, and Atkinson. A paper on Anæsthesia was read by Dr. Dickerman.

Dr. B. Howard, of this city, has been tendered by the trustees of the Ohio Medical College, the Chair of Surgery left vacant by the death of Prof. Blackman.

Diarrhœal Diseases.—At present there is a marked endency to diarrhœal diseases among adults.

Prof. L. A. Sayre.—*The British Medical Journal* of July 22d, speaks of the presence in London of Prof. Lewis A. Sayre, of this city, and of his having lectured upon the subject of joint diseases in St. Bartholomew's, St. Thomas's, the Middlesex, the Children's, and other hospitals, and remarks that this is the second time that an American surgeon visiting that country has brought to the cognisance of the profession there what claims to be a distinct improvement in surgical practice.

Thomas Hawkes Tanner, M.D., F.R.C.S., who died in England on the 7th ultimo, within two days of his 47th birthday, was well-known in the United States as the author of the "Manual of the Practice of Medicine," and a "Practical Treatise on the Diseases of Infancy and Childhood," the former of which went through six editions, increasing in size from a pocket manual to a work of two large volumes. He was also the author of a work on the "Signs and Diseases of Pregnancy," "Clinical Medicine," an "Index of Diseases," "Memoranda on Poisons," "A Clinical Report of Cancer of the Female Sexual Organs, etc." Since 1854 he had been suffering from renal disease, resulting from an attack of scarlatina, which gradually weakened and ultimately ended in uræmic poisoning and death.

German Killed and Wounded.—The following is the detailed account of the losses of the German army in the late war:—

1—OFFICERS.

	Dead.	Wounded.	Missing.	Total.
North German Confederation	918	2,972	30	3,920
Bavaria	156	564	—	720
Würtemberg	25	64	—	82
Baden	22	132	—	154
Hesse	44	63	—	107
	1,165	3,725	30	4,990

2—NON-COMMISSIONED OFFICERS AND MEN.

	Dead.	Wounded.	Missing.	Total.
North German Confederation	14,839	71,792	5,902	92,533
Bavaria	1,527	10,217	—	11,741
Wurtemberg	664	1,688	—	2,362
Baden	424	2,578	263	3,254
Hesse	681	1,467	—	2,148
	18,131	87,742	6,165	112,038

—*British Med. Jour.*

Prof. T. Gaillard Thomas having resigned his position on the staff of Bellevue Hospital, Prof. Edward G. Janeway has been appointed to fill the vacancy. The place thus made vacant by Prof. Janeway in the staff of the Charity Hospital has been filled by the appointment of Dr. William M. Chamberlain.

The Hôtel Dieu.—It is proposed in the *Gazette Hebdomadaire* that the new Hôtel Dieu of Paris be converted into the Hôtel de Ville, and that it be replaced, according to the views expressed by the Societies of Medicine and Surgery, by small hospitals erected outside the city wall.

Dr. Geo. C. Blackman, of Cincinnati, O., died July 23, aged 57. He was born in Connecticut, and graduated at the Medical Department of the New York University in 1844. In the face of great poverty he determined to pursue his medical studies abroad, and for this purpose entered the merchant service as a surgeon. He made various voyages to London, and during his sojourns in that city made the best of his time in attendance upon the hospital clinics. During one of his voyages he translated and edited Vidal de Cassis on Venereal Diseases. A vacancy occurring in the surgical chair of the College of Ohio, he was called to fill it. He was afterwards appointed surgeon to the old Commercial Hospital, the Cincinnati Hospital, and the Good Samaritan Hospital. He soon distinguished himself as a clinical teacher, and as a bold and successful operator. He also served during the war as a surgeon of volunteers. Although enjoying for many years a large and lucrative practice, his habits of liberality were such that, aside from a life insurance policy, but little provision is made for his family. His disease is said to have been cirrhosis, with abdominal dropsy.

Roosevelt Hospital, between Fifty-eighth and Fifty-ninth streets, is nearly completed. The main building is being decorated and painted, and the kitchens and laundries are being fitted with every modern improvement. The adjoining offices and reception rooms will be completed as soon as possible, there being eighty men at work at them. The building, on the whole, is admirably arranged, no expense having been spared to have everything complete. It will most probably be opened early in September.

A Poisonous Wound from the Fin of a Fish.—Dr. Maus R. Vedder, of this city, writes:—Mr. S., a fish dealer, while handling a black bass, received a punctured wound from the fin of the fish, at the distal articulation of the left index finger. (The fin of this fish is considered poisonous among fish-men generally, being used by the fish as an implement of defence.) This was immediately followed by a sharp pain and some inflammation, which lasted, however, but a short time. About the third day all these symptoms increased in great severity, at which time he applied to me.

I found at the seat of the puncture a circumscribed inflammation, while the finger was tense and throbbing with most excruciating pain, extending from the seat of the wound up the entire arm. The glands of the axilla were swollen, with a faint red line following the course of the lymphatics. The patient was restless, his expression anxious, and he complained of pain and sickness of the stomach; pulse, 116, full and hard. I ordered an anodyne and a poultice. The inflammation and swelling increased, till about the fourth day, when four non-communicating abscesses formed—two upon the finger, one upon the dorsal, and one upon the palmar aspect of the hand. These were opened and followed by a considerable discharge of pus

when all the unwonted symptoms abated. The abscesses on the palm and back soon healed, while those on the finger continued to slough and discharge. At different times I removed portions of the flexor tendon, and bits of periosteum. About the sixth week, the first, second, and third phalanx were nearly denuded of periosteum, and exfoliation commenced, while the joints of the phalanx were destroyed; the finger was completely flexed on the palm of the hand. At this stage it became evident that it was useless to endeavor to save the finger, and after Dr. Simmons had placed the patient under the influence of ether, I amputated at the metacarpo-phalaugeal articulation, and the patient is now in a fair way to recover.

New York Physicians.—According to the *New York Medical Register* for 1871, there are, in New York City, Brooklyn, and their vicinity, fifteen hundred and fifty-three physicians in good standing. Estimating the population of New York City and Brooklyn and the adjacent country at 1,400,000, there is a reputable physician to 951 inhabitants. This would be a good percentage in favor of the physician, if the army of quacks and other irregular practitioners were not solicitors of patronage.

Harlem Medical Association of the City of New York.—This Association, organized August 6, 1869, has the following officers, for the year 1871:—*President*, H. H. Gregory, M.D.; *Vice-President*, J. O. Farrington, M.D.; *Secretary*, H. G. Forbes, M.D.; *Treasurer*, A. N. Brockway, M.D.; *Trustees*, Drs. J. O. Farrington, A. N. Brockway, M.D., and Ira B. Read.

St. Francis Hospital.—This institution, in charge of the Sisters of the Poor of St. Francis, is located on East Hamilton Square, Jersey City, N. J. The subjoined medical men are on its staff:—*Attending Surgeon*, J. J. Prendergast, M.D.; *Attending Physician*, Henry Mitchell, M.D.; *Consulting Surgeons*, Drs. James R. Wood, Willard Parker, and T. R. Varick; *Consulting Physicians*, Drs. Alonzo Clark, T. Gaillard Thomas, and A. A. Lutkius.

Statistics of the Medical Profession in the United States.—Dr. J. M. Toner, Washington, D. C. (*Boston Medical and Surgical Journal*), has completed a synopsis of the list of all the physicians of the United States who have paid the special internal revenue tax of ten dollars on their profession for the year ending April 30, 1871, and forwarded it to W. B. Atkinson, M.D., Permanent Secretary of the American Medical Association, as requested by a resolution of that body, for publication in its forthcoming volume of Transactions. The list, he says, as it is at present, may be considered a complete "Medical Register of the United States."

Whole number of physicians of all classes.....			49,798
"	"	" regular physicians. .	39,070
"	"	" homœopathic " ...	2,961
"	"	" hydropathic " ...	133
"	"	" eclectic " ...	2,860
Miscellaneous and unknown " ...			4,774

This gives a ratio of 16.8 physicians to one homœopath in the whole number, and 13.1 regular physicians to one homœopath. Estimating the population of the United States in round numbers at 39,000,000, we have one regular physician to every one thousand of the population. The proportion of homœopathic physicians to the whole population would be about one in every 13,000.

The Oldest Man.—Jacob Fournais, a Canadian Frenchman by birth, died July 22, 1871, in Kansas City, at the age of one hundred and thirty-four years. He was probably the oldest man living in America.

The First Surgical Operation in the late N. Y. Hospital.—Dr. Solomon Drowne, of Rhode Island, on the 13th of July, 1776, amputated the arm of a wounded Continental soldier at this hospital, undoubtedly the first surgical operation that ever took place there.

The New York Hospital and the Asylum for the Insane.—The career of usefulness of the late New York Hospital has lasted eighty years; nearly 145,000 patients have been received, of whom 15,000 died. During the fifty years of the separate existence of the asylum for the insane, opened in 1821, over 6,000 patients have been treated there, of whom more than 2,000 are reported cured, and about an equal number discharged improved, while the average accommodation is far less than 150 patients at a time. When the hospital began, lunatics, small-pox, syphilis, fractures, and maniacs appeared together on the reports of diseases.

The Alumni Association of Bellevue Hospital Medical College.—The officers for the year 1871-72 are as follows:—*President*, William T. Lusk, M.D.; *Vice-President*, Charles A. Leale, M.D.; *Recording Secretary*, Reuben A. Vance, M.D.; *Corresponding Secretary*, Frank H. Bosworth; *Treasurer*, H. Raphael, M.D. *Executive Committee*, T. R. Pooley, M.D., James F. Ferguson, M.D., Bradford S. Thompson, M.D., G. W. Terriberry, M.D., Joseph Cushman, M.D., Ira B. Read, M.D., E. L. Mola, M.D., A. N. Beach, M.D., Frederick A. Castle, M.D., Robert Newman, M.D., Peter R. Cortelyou, M.D., Thaddeus M. B. Cross, M.D., Leroy Milton Yale, M.D., and E. T. Marsh, M.D.

The Warren Prize.—Dr. Horatio C. Wood, of Philadelphia, editor of *New Remedies*, has been awarded this prize, by the staff of the Massachusetts General Hospital, for his essay on nitrite of amyl.

University of Pennsylvania.—Dr. Hayes Agnew, M.D., has been appointed to the chair of Principles and Practice of Surgery, rendered vacant by the resignation of Dr. Henry H. Smith.

A New Medical Institution.—The Sisters of St. Mary, of the Episcopal Church in New York City, offer to take charge, without reward, of a hospital, where a gentleman or lady taken sick at a hotel or boarding-house, no matter how ample his or her means, can command the special conditions most conducive to comfort and recovery. The announcement states, that "it is a remarkable fact, that while there are in New York numerous institutions for the relief of the sick poor, so that every age, sex, and religion, and almost every class of disease, has its special provision, persons who have means, but have no settled home, must, as a rule, lack the care, when sick, which is received as a matter of course by those dependent upon public charity."

An opportunity to make some provision, under peculiarly favorable conditions, is now presented by the generous offer of the Sisters of St. Mary. The institution would be in effect a boarding-house arranged expressly for sick persons. All that is required to inaugurate the plan is sufficient means to meet the first year's rent of a commodious dwelling, and to procure the necessary furniture.

The undersigned unite in expressing their sense of the urgent need of such an institution, and the great benefit that would result from its establishment: Drs. Edward Delafield, Isaac E. Taylor, Willard Parker, Fordyce Barker, Lewis A. Sayre, Edmund R. Peaslee, James R. Wood, Alfred C. Post, John C. Peters, Andrew H. Smith, and fourteen others.

Subscriptions may be sent to Rev. G. H. Houghton, D.D., No. 1 East 29th Street.

Original Communications.

BILLS OF MORTALITY.

By SAMUEL HENRY DICKSON, M.D., LL.D.,

PROFESSOR THEORY AND PRACTICE OF PHYSIC, JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

These funereal records, mortuary registers, wherever published, should and must constitute an important branch of study to the practitioner of medicine. They show, more or less perfectly, often very imperfectly, without doubt, the prevailing character and tendencies of disease in each locality. I am well aware of the not undeserved but somewhat exaggerated depreciation of medical statistics generally by Quetelet, and but too familiar with their numerous defects and frequent untrustworthiness. But it is certain, nevertheless, that these gleanings of information are better, far better, than ignorance or mere conjecture. And there is one point of view in which their value is definite and very considerable. Their errors and defects being of the same nature everywhere, they are fair as comparative statements, and may be accepted as measures of progress or the reverse, of advancement in any direction, or retrogression. As with all their faults, then, they are necessary to us, and must be held and referred to from time to time, it behooves us to regard them carefully; to remedy and supply their deficiencies; to make them correct themselves by extension and accumulation; to establish the greatest possible precision and uniformity of language employed, and to secure the most able and faithful registrars.

For myself, I avow that I am and have always been deeply indebted to the earnest and painstaking officials who, in all our large cities, are engaged in this work of registration. I know, by some personal experience, its great difficulties, and am prepared to make all due allowance. Their labors are complex and tedious, and for the most part altogether inadequately appreciated. The materials supplied them are so ignorantly and carelessly put together, so vaguely and unintelligently rendered in many instances, that it is rather to be wondered at that they contrive to accomplish their tasks so efficiently. We have, by their aid, ascertained approximately the current death-rate of the most populous towns of the civilized world; in Great Britain, of the whole country; we also know from them, perhaps more and more clearly with every coming year, the modes in which, throughout each region, the causes of death produce their effects.

There are many points, however, connected with these, and perhaps of equally profound interest, on which the tables, prepared in their present shape, give us no instruction. We are anxious to know the proportion of deaths to cases, in all forms of disease, to be calculated upon as matter of probable expectation; we wish to estimate, if possible, the average duration of attacks, fatal and convalescent. Our journals and monograph essays on special diseases aid us here, though somewhat vaguely. We recur to the columns of our life insurance offices, to discover what these financial statisticians regard as the value of life under known circumstances. But such documents afford only dim and misty information.

Collating carefully all that we can acquire from these various sources, it is painful to be compelled to the conclusion, that after all our scientific progress and improvement in mechanical arts, and our vast accumulation of knowledge of every kind, our boasted civilization amounts to little more than an enlightened asthenology; as Struve phrases it, "the art of preserving feeble life." Many deny indeed that we have in any degree enhanced the average longevity, except in limited localities, where a detected source of evil has been also found to be susceptible of direct abolition or removal. We must be cautious not to fall into hasty conclusions. The surrounding conditions are ever varying; changes for better or worse are usually slow, and compensations interfere to complicate our problems. We are forced to acknowledge that we have gained little, if even we have incurred no loss, and that Elam is scarcely to be contradicted when he affirms that "our power over disease is in nowise proportioned to our improved knowledge of it." We refuse, however, to assent to his inference, that "our treatment is less efficient now than it was thirty years ago."

The case, I think, may be fairly stated thus: that while it is certain that all who are born must die [Asgill and Jeremy Taylor to the contrary notwithstanding—see Southey's "Doctor," vol. vii.], and although it is probable that the average standard of civilized health is somewhat lowered, yet the Healing Art has so far prevailed that *invalids live longer* than formerly, and the sick *suffer much less* from their maladies. At first sight, this may seem to imply a greater average duration of life, but it does not follow. Infants die earlier in our dense populations; there are more still-born children, that is, who die at and just before birth; epidemics and contagious diseases—*nova febrium cohors*—sweep off strong and adult life in masses so much more crowded, and with so much more rapid extension, as commerce and locomotive facilities have rendered prompt and easy the communication or conveyance of diseases and causes of disease. It is true that we have got rid of the black death and the plague, and vastly narrowed the ravages of the small-pox; but we have our invasions of cholera, diphtheria, spotted and relapsing fevers, and that most dreadful of all known forms of pestilence—scarlatina—in their stead.

A writer in the *Westminster Review*, July, 1869, with abundant details which seem to make good his position, maintains that "the medical profession has of late years done more to assuage suffering and prolong life than it has ever done before; and that if it were not for the labors of that profession the death-rate in England would be greater than it actually is." Examining, it appears fairly, the reports of the Registrar-General, he at last concludes from the statements before him, which he quotes freely, "that in spite of these labors and of our improved hygiene, the death-rate has increased from 22 to 23 per 1,000 per annum." Hence he infers that "there must exist some secret or unrecognized agency at work which is slowly but surely destroying the health and strength of the British people." He sums up in the following strong language:—"Evidence of the most reliable kind justifies the belief that, in England at all events, the human constitution is deteriorating; that it is more prone to disease than it was thirty years ago: and that within the same period, notwithstanding the boasted progress meanwhile of the science and art of medicine, the average duration of life has lessened. According to the returns of the Registrar-General, almost all diseases notable for their fatality are, in proportion to the number of persons living, much more fatal than formerly."

Registration in our own country is so limited in its extent, and so imperfectly regulated, as not to allow our speaking very positively on the subject; but there are not wanting reasons for our arriving at a similar conclusion in regard to our condition. I am sufficiently an optimist, however, to consider this state of things as transient, and to indulge a confident hope that our in-

choate and hurried civilization will go on to remedy its own defects, and will tend to develop an improved intelligence concurrently with progressively elevated moral and physical qualities. Meanwhile the waste of human life among us appears to be enormous, when we compare the actual increase of our population with what it should be with our abundant means of living, and the astonishing influx of immigrants from every quarter of the globe. A careful collation and comparison of the "bills of mortality" published in our great towns, and the tables furnished by the lustral and decennial census throughout the land, would enlighten us greatly, without doubt, on these interesting topics. The material for such work is not at present within my reach, and if it were the task is a huge one, and would, I fear, prove far beyond my ability. A division of labor may accomplish some useful results, however, and with that view I shall attempt the exploration of a limited portion of the vast field before us.

Among the reports annually issued by the Boards of Health of American cities, those of Philadelphia are distinguished always for their fulness and minuteness, and the careful preparation so creditable to those concerned in getting them up. This is emphatically true of the Report for the last year, 1870, which is indeed rather a volume than a pamphlet of the usual size, and contains much that every physician should make himself acquainted with. Selecting it, then, as a very favorable specimen of this class of documents, I will offer a few comments upon it, following no formal order, but going on simply from page to page.

At the very beginning we are struck with the announcement that the deaths of 1870 exceed those of 1869 by 1,964, or 13.20 per cent. This is so large an excess that we are led at once to inquire whether this degree of unfavorable difference is unprecedented, and why it should have occurred. The whole number is 16,750; now, on looking back over the records of the past ten years, we find that it is less than that of 1865, when it was 17,160, or that of 1864, set down as 17,582. The smallest annual aggregate within the decennial period was that of 1867, 13,939; the greatest that of 1864, just given above; the average for the ten years being 15,706. Estimating the population, as it is in the U. S. Census, at 670,000, the proportion of deaths would be 1 in 42 and a fraction; the proportion for 1870 is not much above this—1 in 40, almost exactly. This is a very fair showing of comparative healthfulness, though it differs somewhat from the too favorable statements repeated in each successive report, founded upon an exaggerated account of the population, which is placed as high as 800,000 by some, and by none lower, during the time specified, than 750,000. I cannot be far wrong in accepting the official table; for if it give too small a number for 1870 it would be too large for 1861, and it would surely be safe to regard it as the average of the entire period of ten years.

We seek dubiously the cause of this excess of deaths in 1870—fully 1,000 above the average number. The official report, signed by the Health Officer, the Registrar, the President of the Board of Health and its Secretary, emphatically repudiates the ascription of it "to any special cause, as it was equally divided among the various diseases, and no one disease of such severity as to cause any alarm. This statement is made to disabuse the minds of those who are disposed to attribute the augmentation of deaths to the prevalence of any *epidemic* during the year." On the other hand, the Port Physician, Dr. Goodman, affirms: "The *epidemic* atmosphere, during the past year was most apparent everywhere"—instancing relapsing fever with 162 deaths; yellow fever with 13; but omitting any reference to scarlet fever, immolating 956 victims. Nor does either document mention in this relation the deaths by cholera infantum, amounting to 1,002. The summer was a very hot one, but there were no other obvious contingencies noted of evil character.

The excess of births over deaths is only 444; a strange contrast with that of 1861, which is given as 2,803. What can have occasioned so marked a difference? We can only accept the suggestion that there is great neglect of returns of births, nor are there any means of enforcing compliance with the law on this subject. It surely calls for legislative action.

The proportion of early deaths is frightful, as indeed it would seem to be almost everywhere. Prof. Jacobi, of New York, has made some startling disclosures as to infant mortality there, and a recent lecture of Dr. Parry, in Philadelphia, contains matter of similarly painful import. It is shocking to find that 7,432—nearly half the deaths of 1870—were of children under five years of age. Cholera infantum carried off 1,002, of whom all but one were under five years, and all but one natives. These victims sank under the high temperature of the third quarter, in which alone there is any notable *excess of young deaths*, which in the second quarter is no more than 87. It is almost confined to July and August, being in these two months 1,086. The Board ascribe this terrible mortality to "the unwise and imprudent purchase of green fruit." But this can hardly be a satisfactory view of the cause; for we remark that 755 died in the first year of life, when we can hardly imagine any fruit, green or ripe, to be employed as food or luxury; and 230 in the second year, when possibly some such indulgence may have been allowed by an ignorant or busy or careless parent or nurse, but could hardly have been carried very far in so early a stage of infancy.

Let us indulge the hope that among the impending achievements of the hygienic optimist we shall witness the introduction of some means of *cooling* our habitations in summer as effectually as those we now possess for *warming* them in winter. A gardener of the Duke of Devonshire boasted to us that his art had attained an absolute independence of season and climate, and that, with money enough at command, he could offer his employer any known fruit at any time of the year. Human life may not be worth so much as a rare fruit or flower, and it is not probably so much under our control; but if we can manage to defend our little ones from the summer's heat and the winter's cold, they will not be likely to die either of croup or cholera. Exceptional or sporadic instances of either may occur, perhaps, but we shall not have to lament any sweeping "massacre of the innocents." The *hot air*, to which I ascribe these summer deaths, is always and of course *foul air* also, for free ventilation is a cooling process. And when we look over the list of "filthy alleys, cellars, cess-pools, and other nuisances visited and abated," we perceive many injurious elements combined for destruction. Let it be observed, however, that all these horrors exist throughout the year; it is only during "the heated term" that they are direfully fatal.

It should not be forgotten that we are all—Kelts and Teutons together—exotics here on this continent, invaders and intruders, and have to undergo, from generation to generation, the slow acclimating process. It remains questionable whether we shall ever be thoroughly acclimatized; thus far there has been little apparent progress, if diminished proclivity to climatic maladies constitute the true test.

A well-written letter and table furnished by Dr. J. H. Taylor, "Physician in charge of the Municipal Hos-

pital," affords us the following history of a pestilence newly introduced among us—relapsing fever. Of 590 patients received during the year, this malady yielded 490. There were 246 whites, of whom died 4, = 1 in 60½; of colored there were 244, of whom 62 died, = 1 in 3⅞. It is not easy to explain this prodigious difference in proportional mortality. Negroes do not die *thus* of yellow fever, nor of scarlatina, nor diphtheria.

The colored hybrid is farther removed from the black than from the white, as Knight has shown that, in all hybridism, the better element prevails and raises the product more than half way. It is to be regretted that this distinction is so generally ignored, and that all who are of the lower race are spoken of under one head. A *mulatto* is, in all grades, essentially not a *negro*. He has acquired, by birth and blood, peculiarities which expose him specially, and specially protect him. He is as liable as his white progenitor to malarial fevers and to yellow fever, and dies as readily of scarlatina and diphtheria. I am curious to know where he stands as to the proclivity of his dark ancestor to the access of relapsing fever, and his promptness to sink under its attack. This strange malady was first imported into this country from abroad; but we are assured that we have the happy facility of generating it for ourselves. Dr. Parry gives, in the *American Journal of the Medical Sciences*, a very clear statement of its spontaneous independent origin in Philadelphia. He proves also that it does not arise from destitution, as has been assumed in Europe, where it has been known as "the famine fever." By general consent its contagiousness is admitted, as well as its tenacious adherence in particular localities. Dr. Goodman is confident "that no less than 5,000 cases occurred in Philadelphia during the year ending Sept. 1, 1870, with 200 deaths, = 1 in 25. The prevalence of such an epidemic," as Dr. G. justly observes, "involves untold misery, suffering, and destitution among a class little fitted to bear them." We must ask whether it is not possible to prevent all this. If possible, civilized Christianity must acknowledge it as a duty to abolish as rapidly as possible the polluted haunts in which it is known to be bred, and from which it is propagated and, perhaps, radiated widely.

One paragraph of Dr. Goodman's letter should be recited here, and emphatically repeated and reiterated and dwelt on until the evil it alludes to is corrected. "I have seen," he says, "several deaths from want of knowledge how to get destitute sick into the almshouse for treatment; some have been so sent from post to pillar, endeavoring to obtain admission, that I have finally sent them to the Hospital for Contagious Diseases, to *save them from starvation and death!*"

It is rare to find a hospital founded on true philanthropic principles. Such a one was the "Roper Hospital," of Charleston, South Carolina; of which the fundamental rule was, that a sick patient was to be at once received and taken care of without question—without delay. No matter whether young or old, black or white or yellow, rich or poor, free or slave—and it was in a Slave State, before emancipation was anything but a dream—he was detained no longer than to ascertain the existence of real, not feigned disease. In every city on the globe there should be at least one such institution, which should serve as a home for the utterly friendless when ill, and at least as a temporary refuge for those who require time to procure the "orders" and "certificates" ultimately within their reach, but not immediately accessible in their hour of need. These may be finally disposed of elsewhere as privileged.

While cellar-life is permitted in cities, and their streets are paved with cobble-stones which invite and retain in their interstices, and in the foul beds of ashes and other refuse on which they repose, all sorts of animal and vegetable pollution; and while narrow alleys and closed courts abound, crowded with children, cows, horses, and pigs, into which no breath of heaven's sweet diluting air can penetrate, it will not be possible to prevent the generation, epidemic spread, and melancholy mortality of pestilence of indefinable variety. Let us hope that the earnest recommendations of Dr. Goodman on these points may not pass unheeded.

A letter from the gentleman just named, and one from Dr. J. Howard Taylor, Lazaretto Physician, concerning the yellow fever which showed itself at the Quarantine station below the city, and in one of its wards, give the details of the cases of that disease with satisfactory fulness. Imported in and by the brig *Home*, from the West Indies, it attacked 29 out of 103, the population of the Lazaretto; carrying off, with characteristic malignity, 18, among whom, we grieve to notice, were the estimable Quarantine Physician Dr. Thompson, the wife of the steward of the hospital, and one of the oldest and most faithful nurses. The city cases amounted to 17, of whom 13 died! They were all in one neighborhood, and are ascribed unhesitatingly by Dr. Goodman to local sources. "I am unable," he says, "after the most careful investigation, to trace the *epidemic* (*of* 17 *cases*) to any exotic cause, and am compelled to look upon its origin as entirely *sporadic*." He emphatically localizes it by speaking of it as "the Swanson street Epidemic of 1870." Now, from himself we learn that one of the crew of the *Home* was taken sick July 8th, in Swanson street, in one house and removed to another, throwing up the black vomit three times while walking between them, and that three others of the crew of the same infected vessel lodged at a boarding-house in the same street, where one of them "had yellow fever eight days," and was sent to hospital on the 19th July.

The first case which he reports as "not traceable to any exotic cause" was taken ill on 8th August and died on the 12th. This man, he tells us, was stationed on Windmill Island, on which the deckload of logwood from the *Home* was landed by a barge, and that he was frequently at a tavern in Swanson street, from the 1st to the 9th August.

Dr. Taylor's cautiously and in every way well-written letter mentions incidentally the imperfect insulation of the dangerous brig and her no less mischievous cargo and other belongings. "Those employed in discharging her had the unrestricted freedom of the shore, including frequent visits to Philadelphia; while to the citizens of the neighborhood it gave an object of interest and curiosity requiring many visits to satisfy." After all this it surely appears to be a hardy assertion that no exotic source can be traced for the Swanson street cases, of which it is on the other hand absolutely clear that if the foul West India vessel was not the *causa causans*, her presence was the *causa sine qui non*, and that not one of them would have died of yellow fever if she had not brought it into the Delaware River. The language of Dr. Taylor is in strong contrast with the dogmatic assertions of Dr. Goodman, when he has occasion to refer to "those cases occurring *in the city* and outside, though contiguous to the Quarantine limits, but *directly traceable to the brig Home*."

Passing now to the "bill of mortality" proper, we glance hastily at the nomenclature, and indorse earnestly the recommendations of the Registrar as to its restriction and improvement. Like him we are heartily ashamed of the ridiculous and disgraceful language of some of the medical certificates, and long for the

adoption of some regular form by which every practitioner shall be obliged by law, and under penalty, to govern himself in making his returns.

There are, however, certain corrections which we would suggest as being at once feasible in some degree, if the attention of physicians were called to them in any way. General terms, for instance, are employed, such as Cancer, to which 104 deaths are ascribed; then we have properly given the local seats of which we think and inquire—cancer of the breast, the eye, the uterus, etc., 155 more. "Congestion" numbers 6 victims; then we have congestion of the brain, 378; of the lungs, 154; then of the chest, etc., etc. By and by we have "disease of the brain, heart," etc., etc.; then, separately, effusion on the brain, 56; dropsy takes off 236; dropsy of the abdomen, chest, heart, etc., as many in addition.

Certain vague terms should be abolished: Old Age, Debility, Inanition, Hemorrhage, Fever, Convulsions. Death from *old age* without disease is unknown. *Debility* is the almost universal direct cause of death. I once saw in the hands of the Registrar of one of our cities a certificate to the following purport:—"E. R., æt. 67. She died because she was too weak; she could not live." Signed ——, M.D., etc. *Inanition* means starvation—a very rare calamity, we trust—and either suicidal or from occlusion of œsophagus, which should be specified. *Hemorrhage* must issue from some ascertainable locality. *Fever* must have a specific character, or at least a "trivial" name; and *Convulsions*, incidental to numerous deaths, are never the true cause of any. A calf bled freely enough, and a chicken decapitated, die in convulsions.

The greater number of deaths is, as usual, attributed to "consumption of the lungs;" there is an item "consumption of the bowels," an antithesis of which the meaning is not clear. It is worthy our notice how little the record of phthisis differs from year to year, whatever capricious change may occur in the successive seasons. Its ratio either to population or to absolute number of deaths varies only by mere fractions. For the last ten years its average proportion to population has been about 1 in 335; the highest rate is that of 1870—1 in about 290; the lowest that of 1866—1 in 345. The average proportion to absolute number of deaths during the decennium has been 1 in 7⅓; the highest again recently in 1870—1 in 7¼, the lowest in 1864—1 in 8⅔. Yet the number of deaths from consumption in 1864 was only inferior to the highest in 1870 (in 1864 taking off 2,089; in 1870, 2,408); the favorable ratio being accounted for by the great excess of the whole number of deaths in that year: 17,582. During the 10 years including 1861 and 1870 there was little variation until the last, which presents the remarkable addition of 333 beyond the preceding year. The most notable difference occurring previously, happened between 1861—deaths 1,817, and 1864—deaths 2,089=272. Phthisis had been increasingly fatal for a considerable course of years up to 1864; thence until 1870 we mark a small decrease. I have before me the record of consumption in an unbroken series from 1848 inclusive. For the first three years the deaths are set down as between 900 and 1,000. In 1851 a marked diminution appears, only 801 being ascribed to it. But the next year shows as marked an increase to 1,204—an unfavorable difference of 403. Henceforward, augmenting with the growing population of the city, we find a pretty steady annual increase, with the exception of 1859, when the number was 154 less than the preceding, and 117 less than the following year.

These statistics do not accord with the general belief that consumption has become either less frequent or more curable than in times past. Let me repeat that my calculation of proportions has been founded—not unreasonably or unfairly, I think—upon the last census. If Philadelphia is rated too low to-day, the effect of the error is remedied by assuming the statement as the average of ten years, at the commencement of which period it would be as much overrated.

It is to be feared that the profession has indulged too sanguine expectations on the one hand from certain proposed specifics, and on the other from the unduly eulogized improvements in our general therapeutic.

Next on the list of fatal diseases stands cholera-infantum, 1,002. I will only add to what is said above on this head, 1st, That it is questionable whether there is any specific or separate disease to be specially designated by this trivial name; and 2d, That if there is, the diagnosis must be always difficult, and often impossible. True cholera may perhaps attack infants of tender age; they are ready subjects of diarrhœa, dysentery, enteritis, intussusceptio, etc. Every practitioner knows how common a habit it is to class all the "summer complaints" of children under this dreaded title, especially when they prove fatal. If the simple diagnosis above suggested were made, there would be but few anomalous examples to constitute the nondescript but fatal pestilence which holds so prominent a place in city mortality in America. It is unknown—*eo nomine*—in Europe. You will not find it in the index to Aitkin's great work, nor that of Niemeyer; nor in the carefully constructed "Nomenclature of Diseases," drawn up by "A Joint Committee of the Royal College of Physicians in London"—without question the highest names of our profession—submitted to their examination throughout the world, and at this moment under consideration before the American Medical Association, by whom it has been referred to an able committee for revision and report.

With humiliation and profound regret I turn to the third malady on this gloomy catalogue,—scarlatina,—a hateful pestilence, foremost among the *opprobria medicorum*. Its victims amount to 956; they counted in 1861 the largest number yet known in this locality—1,190; in 1869 there were 799. What a waste of fresh young life! What an infinite mass of suffering and sorrow is here indicated! This malignant exanthem seems to have found congenial soil, and to have become fixed everywhere after it once intrudes its unwelcome infection: it is never entirely wanting on the bills of mortality of any of our large towns. It is clearly an exotic, but, like many other exotics, is thoughtlessly regarded by some as indigenous. Almost all admit its contagiousness. In either case a persevering effort should be made to "stamp it out," as the local authorities of more than one city have boasted to have repressed cholera and yellow fever; thirty deaths by which last have given rise to more panic, and afforded occasion for more fine writing and ingenious special pleading, than the hundreds carried off every year by our more familiar and tenacious disorders. To these we submit with true Mahometan passiveness and acquiescence.

Small-pox claims 9 deaths; Philadelphia having thus far escaped the wandering or epidemic tendency which this disease has shown in many parts of Europe and our own country. It is or should be under control and prevented from spreading. We have ordinances for its insulation, and a separate hospital for its subjects. The newspapers tell us of a "Doctor" sent to prison for visiting patients with pustules on his body. We have no laws for the insulation of scarlet-fever; no arrangements are proposed or instituted

to preserve the community from its indefinite propagation; no obligatory measures of disinfection and purification enforced or even suggested.

Pneumonia—or, as it is styled, "inflammation of the lungs"—comes next, with 811 deaths. Looking back through the Mortuary Register, we shall find it in any lustral or decennial period second on the list, as it is in 1870 the fourth; an unfamiliar position, owing to the excessive prevalence of so-called cholera infantum and of scarlatina. The reports of fourteen years, from 1855 to 1870, inclusive (with the exception of 1868 mislaid), give a total of 10,022, an annual average of 715. It is curious to observe how little special notice is taken of this large mortality. In the comments upon the detailed tables which always accompany them, we shall never fail to find remarks made upon items comparatively unimportant and insignificant—as apoplexy, croup, diphtheria, whooping-cough, measles, hernia, tumor, etc., etc.; but not a word of this constant cause of the greatest number of deaths next to consumption.

Nor is this indifference confined to the formal documents of the official Registrar. Consulting the "Report on Epidemics, etc.," presented to the College of Physicians of Philadelphia for 1868, in the hope of finding there the mortality of pneumonia in that year, I was surprised and disappointed at the omission of the anticipated item. Erysipelas has a special notice, and rubeola, and croup, small-pox with its single victim, and pertussis, coup de soleil, gout, and rheumatism. A brief paragraph is given to the respiratory system, as follows: "Diseases of the respiratory system—including phthisis—caused, in 1866, 1,342 deaths; in 1867, 1,082; and in 1868, 1,227, or 9.16 per cent. of the mortality from all causes."

I have elsewhere endeavored to attract the attention of my brother practitioners to this not unimportant topic. In all our systematic works on medicine pneumonia is treated of as one of the most curable, and indeed self-subsiding of maladies. It is indeed the chosen theme of the Homœopathist, and of the advocates of the Médecine Expectante, and the "Restorative System." On the contrary, taking a wide view of its prevalence and danger in all temperate climates, I have proved it to be among the most fatal of human diseases, giving rise to a mortality of not less than one in five of the sick, as is shown by most extensive statistics, gathered from all accessible and authentic sources, to the amount of fully 100,000 examples in tables quoted. This is the average result of the details communicated from hospitals and private practice, in war and in peace, among soldiers and civilians, rich and poor, in cities, country places, barracks, and field service.

Nay, it is not thus fatal in temperate regions only. Barth gives us a statement from the "Bulletin of the Statistical Society of Mexico," where pneumonia is very frequent and phthisis is said to be rare, that "of a total of 27,799 deaths occurring within a period of four years, there were 3,666 from pneumonia, about 1 in 7½, very nearly the proportion of consumption on this side of the Potomac."

Here I lay down my pen. My purpose in preparing this paper was to urge upon my medical brethren the necessity of taking action upon the subject discussed, and rescuing the profession from the shame of a registration whose defects are all owing to their neglect, and whose value to the community would be vastly enhanced if they would aid the officials engaged in it in the performance of the duties which they so creditably endeavor to fulfil, but which are rendered so much more difficult by the want of skilful and prudent direction.

It would be an easy task to any well-read physician to prepare a tabular formula to be furnished, under the proper authority, professional and legal, to all recognized practitioners, who should be compelled, at the risk of due penalty, to make use of it in writing mortuary certificates and making returns, and to govern themselves by it, and confine themselves exclusively to the precise phraseology which it should indicate.

ELECTRO-THERAPEUTICS.

EXTRACT FROM A PAPER READ BEFORE THE KINGS COUNTY MEDICAL SOCIETY,

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SCIRRHUS OF THE RIGHT MAMMA.

Case I.—Mrs. L—, aged 39, married, had two children; resides in the Eastern District, Brooklyn; says she has no hereditary taint. November 15, 1869, called at the office to consult us concerning her breast. On examination we found the mamma on the right side presenting all the characteristic features of scirrhus; fully two-thirds of the gland was involved, with indication of the same trouble about the glands of the axilla. At the base of the tumor was an ulceration of four inches in length and between one and two inches in width, with irregular ragged edges, discharging that peculiar fluid indicative of the disease. The hard, stony impression to the touch, the sharp and lancinating pain, the cells peculiar to the disease under the microscope, induced us to believe it truly malignant. Her history is as follows: About one year ago she noticed a small hard tumor of the right breast, which grew larger and more painful, until her friends induced her to go to the clinic of the Twenty-third Street School, where (as she says) she was informed by the medical gentlemen that her trouble was cancer, and that her only remedy was the knife.

We determined to try the electrolytic powers of the galvanic current. On the above-mentioned day we commenced treatment, a few minutes' application at each sitting. Ordered the ulcer to be dressed with solution of carbolic acid and glycerine.

Nov. 17.—The acute pain almost gone; rest and appetite better. (If electricity had no other merit, the fact of its great anæsthetic power to local pain would make it a blessing to the healing art.) Made another application of electricity, duration of which was long enough to produce a livid congestion of the skin of the tumor.

Nov. 20.—Much improvement in the ulcerated track noticed, with efforts of healthy granulation.

Nov. 22 and 27.—Tumor softer and smaller; bright granulations throughout the ulcer; no more pain. Made application of galvanism on both days.

Nov. 29, and Dec. 2.—Still improving. Continued the treatment.

Dec. 9, 12, and 30.—Tumor decreased fully two-thirds; general appearance much better; leaden or doughy appearance of the face gone. Continued treatment.

Jan. 3, 1870.—Called to report great progress; breast about well; retracted nipple commencing to bulge. Mrs. L. delighted, and continues to call at ten days' intervals until the middle of March, 1870, when she was discharged cured. *Since* she has been delivered of a healthy child, and is able to nurse it well. In the application of electricity to tumors we apply the positive pole covered with sponge to the base, while to the surface the negative pole with a metallic brush attached. Time of each sitting from five to ten minutes.

REMOVAL OF A NASO-PHARYNGEAL POLYPUS BY THE GALVANO AND FARADIC CURRENT.

CASE II.—Mr. F-- came under our observation February 10, 1871, for the treatment of nasal polypus of over three years' standing, the history of which ran as follows: He had consulted the first surgeons of New York and Brooklyn, and had spent a little fortune in this effort, without relief. After exploring the cavity and finding the tumor so soft, so yielding as to resist all instrumental interference, we commenced the treatment by the application of the constant current. This was repeated day after day until the last of March, with partial success, when we began the application of the Faradic current, which was continued up to April 15th, when we discharged him cured; or, as he said, in a condition which he had not experienced for over three years. Mode of application: a positive pole with a curved electroid passed into the nasal cavity of the affected side, the negative pole similarly constructed applied back of the velum palati. Duration of application, three to five minutes. In the nose, throat, and other passages, the parts must be educated to the treatment.

SUCCESSFUL TREATMENT OF ATROPHY AND PARTIAL PARALYSIS OF THE LOWER EXTREMITY.

CASE III.—This case was a little patient from Savannah, Ga., Miss S--, aged 10 years, staying at the Arlington House, New York, where we treated her for hip-joint disease (in the second stage) of about one year's standing. We had to contend with much atrophy and loss of power of the muscles of the affected limb, especially lower leg. After she was able to wear the portable splint, we subjected her to daily application of electricity of the Franklinic or friction machine, commencing the treatment in the month of August, 1869, and continued its use until January, 1871, when we had the pleasure of discharging her cured—no limp or shortening, no atrophy or deformity—use and strength of the limb perfect.

ARTICULAR RHEUMATISM.

CASE IV.—In June, 1869, we were called to see Miss C—, of Warren street, suffering from acute rheumatism of the joints. She informed us that she endured these attacks every spring or summer for years past. We found her intolerable to the slightest touch or movement about the affected parts, so much so that we had to commence the treatment (Faradic current) at some distance from the seat of trouble, and gradually approach it. After ten or fifteen minutes of Faradaism the pain and tenderness was much subdued; henceforth she could tolerate the bed-clothes, and place herself in any position.

June 7.—Made our second visit, and found her greatly relieved; had slept soundly for the first time in many nights; less swelling and redness about the joints. Examined the urine; found it laden with uric acid and urates. Ordered the saline portion; repeated the Faradic treatment.

June 9, 1869.—She is much improved. Urine of lighter color; less acid. Continued the treatment.

June 12.—No pain; joints a little stiff. Application of electricity was continued for ten days longer, which ended the attack in a shorter period than any of the many seizures she had endured for years past. In her family it was hereditary. Ever since she has been able to ward off the attack by the application of the current.

FACIAL NEURALGIA.

CASE V.—Miss F—, Court street, aged 35, has been a sufferer many years from facial neuralgia. Tried many remedies in vain.

Oct. 5, 1869.—Made an application of the galvanic current, the positive pole to the orbit, while with the negative pole we passed a small metallic brush over the distribution of the facial nerves. The result was happy, affording instant relief. By the next morning her attack was renewed with violence. This occurred for several days, when we obtained information of a syphilitic taint; therefore we placed her upon the specific treatment, and continued battery current with much success. Since then she has had no return of her trouble.

This is a selection of many cases that have come under our observation in the application of electricity to medical and surgical cases during the past two years.

I have tried almost every electrical battery and machine of the present day, and find none so portable and so reliable at all times and under all circumstances as those made by the Galvano-Faradic Manufacturing Company of New York.

Since the above report of cases, I have treated the Rev. Dr. G——, a prominent Catholic clergyman of this city, who suffered from malignant tumor involving the right side of the face, neck, trachea, and other vital organs, to that extent wherein surgical interference was almost out of the question. He had consulted prominent members of the profession both at home and abroad without encouragement or success. The growth was rapid, and pointing to an early dissolution by suffocation, indicating all the characteristics of scirrhus.

On June 5th, 1871, he called at my office to consult me concerning his trouble, whereupon I informed him of its serious and questionable nature, and that in my opinion little encouragement could be given save that which might be afforded by the judicious use of electricity. Our mode of treatment in this case was daily applications of the galvanic current from a 16-cell battery (of G. F. Manufacturing Co.).

This treatment was continued from June 5 to July 7, twenty-four applications in all, with great success, the tumor having entirely disappeared, relieving him of all its distressing features.

REPEATED OVARIOTOMY—REMOVAL OF A SOLID TUMOR—RECOVERY.

By EDWARD T. CASWELL, M.D.,

SURGEON TO THE RHODE ISLAND HOSPITAL, PROVIDENCE, R. I.

IN the MEDICAL RECORD of August 1, 1867, I reported a case of successful ovariotomy performed by my former partner, the late Dr. Miller. A few weeks since I removed a second ovarian tumor from the same patient, and as the case presented some peculiar features, it may be well to place it on record. The reader is referred to the above-mentioned number of this journal for the previous history of the case. I would merely add to the statements there made, that from a more extended acquaintance with ovarian tumors, I have been led to doubt the truth of the assertion that the tumor then removed was malignant.

The patient was an Irish woman, at present about fifty years old. The first operation was performed on October 10, 1866. She recovered from that operation with an abdominal hernia in the lower part of the line of the incision. This did not, however, cause her any special inconvenience, and she was enabled to work in a cotton-mill for the greater part of the next three years. In May, 1870, she first noticed that she was again increasing in size, and in August of that year it became necessary to

tap her. This operation was repeated in the following January, and again in February. At each time I drew off from ten to fifteen quarts of limpid, yellowish serum. The presence of a large tumor was very manifest after the removal of the fluid, and in consequence of the combined pressure of the tumor and the fluid, the hernia had attained a considerable size. The patient was very anxious to undergo a second operation, and I was very confident of success. Although I was much less sanguine, I consented to perform the operation, for I felt sure that at the worst it could but slightly shorten a suffering and wearisome life.

The operation was performed at noon on the 16th of May last, at a private house, in the presence of some of my colleagues of the hospital and other medical gentlemen. The hernia at that time was nearly as large as the surface of a pint bowl, and was easily replaced, although it was at once reproduced. The opening through which it protruded was distinctly marked by sharp edges, and seemed to be about one and a half inches broad and two inches long, its lower point being about two inches above the symphisis pubis. The integument at the upper portion of the hernial opening seemed to be considerably thickened, although in the line of the incision above that it was unusually thin. Prior to the operation it had been suggested to me to close the opening through which the hernia proceeded, and thus effect a radical cure of the complication. When, however, we saw the size of the opening, it seemed hardly probable that I could secure so desirable a result, and the sequel will show, I think, that I was fortunate in not attempting it.

After the patient was completely etherized I commenced the operation, by pinching up a fold of the thin integument above the hernia, passing my knife through it, with the blade directed upwards, about a quarter of an inch to the right of the old cicatrix. I then made an incision about two inches long through the skin alone. This was immediately followed by a copious discharge of fluid, similar to that I had drawn off on previous occasions. To my surprise I found I was already in the abdominal cavity, and therefore proceeded, by manipulation of the walls and of the tumor, to remove all the fluid possible. I obtained two quarts and a pint. Proceeding in the examination, I found below my incision, at the upper part of the hernial protrusion, a loop of intestine on the left side, firmly glued to the old cicatrix, and on the right, a little lower down, another loop similarly attached. The pressure of these loops would have prevented all efforts to relieve the hernia, and it was surprising to see under what unfavorable circumstances the intestines had performed their natural functions.

The tumor presented itself as a large, smooth, slightly lobulated mass, feeling quite firm, filling the pelvis and dipping down deeply into the iliac regions. It proceeded from the right ovary and had no adhesions. Thinking that there might be fluid in some portion, I passed a small trocar into the mass at two or three different points, but without finding any fluid. The incision was several times enlarged, and it was not until it reached about seven inches and extended above the umbilicus that I could turn out the tumor. During the manipulation of the tumor some hemorrhage occurred from it, but to no great amount. The pedicle was easily found, and proved to be rather small, and not long. As the tumor was of such size, and as the lowest point of the incision was about four inches and a half above the symphysis, the lifting out of the tumor produced a manifest ascent of the uterus. Therefore, as quickly as possible, a double ligature of strongly twisted silk was passed through the pedicle; both sides were firmly tied, and both ends of each ligature cut off. The pedicle was then cut and allowed to sink back with the uterus into the pelvis. No vessels required ligation, and after the pelvic cavity was carefully cleansed, the sides of the incision were drawn together with five deep sutures passing through the peritonæum, and three superficial ones, all of silver wire. I may regret that I did not examine the stump of the old operation, but I thought the additional manipulation necessary might be the straw that would break the camel's back. A thick pad of cotton batting and a broad flannel bandage completed the dressings. The operation and dressing occupied forty minutes, and at its close the pulse was 108.

The tumor weighed ten pounds and a quarter, was lobulated, firm, and of a grayish and blackish color. On the surface there were two or three small cysts as large as a hazelnut. Upon section it cut rather firmly, and yielded an abundance of thick colloid-like fluid. It was as the Germans say *saftreich*, and would perhaps be classed under the cysto-sarcoma, although the sarcomatous element greatly predominated.

I will not weary the reader by quoting from my record the details of the subsequent history of the case. She was surprisingly comfortable for the first few days after the operation. During the whole period of convalescence her pulse was never above 104, and generally it ranged from 88 to 96. The abdomen was much of the time distended with wind, and this was but partially relieved by the passage of the long tube, or by injections of spearmint tea and turpentine. The catheter was passed two or three times a day for ten days. She suffered during the second and third weeks at times from an obstinate diarrhœa. The superficial sutures were removed on the 23d, and the deep on the 30th of the month. The wound united by first intention, with the exception of the lowest portion, which was filled with granulations. From the first she was well nourished with beef-tea, and brandy and wine whey. Opium was administered freely, and quinine was given after the first few days continuously.

At one time only was I fearful of losing my patient, and the phenomena that were then presented I am quite unable to explain. On the tenth day after the operation she was feeling very comfortable, and her pulse had been as usual 88, but at 4 P.M. I found it 48. It, however, came up to its usual standard in a few seconds. At 11 P.M. the same thing occurred, and she said that she felt pain in the region of her heart, and that her head would burst open; but these sensations soon passed off. At 6 A.M. of the next day, the 27th, I found that she had passed a very good night, and felt very well. Her pulse was then 88. While I had my finger on her pulse, talking with her, it seemed suddenly to drop right down to 42, and the next second was not perceptible. The head was thrown back and the eyes rolled up. I seized some tincture of camphor, which was the nearest thing I could reach, and administered a teaspoonful. It produced vomiting, and she at once rallied. There was no disease of the heart manifest. I ordered carbonate of ammonia and brandy every fifteen minutes alternately. She passed through the day without a recurrence of the attack, but in the evening another occurred in my absence, of a less severe character, though lasting longer. From that time they were not repeated, and with the exception of the diarrhœa my patient met with no further obstacles to recovery. She was allowed to get out of bed at the end of the fourth week, and in three weeks more she walked downstairs to her own house, which was a short distance off, feeling as well as ever. The hernia has returned to its

former dimensions, and a well-fitting pad on a broad board affords her entire comfort and security.

August 3, 1871.

Progress of Medical Science.

A New Method of Disinfection.—Edward H. Hoskin, M.D., of Boston, Mass. (*Boston Med. and Surgical Journal*), has designed a new and simple apparatus, which he calls an "Eudipile," the object of which is to vaporize certain chemical substances, and thus thoroughly to disinfect the air, walls, ceiling, and the entire contents of any apartment. It consists of a bottle, wick, and—attached to the free end of the wick—a bulb of spongy platinum. Into the bottle should be poured an alcoholic solution of the substance which it is desired to vaporize; the wick is then to be lighted, and the flame extinguished as soon as the ball becomes red hot, which requires but two or three minutes. The ball is now fed continuously by the wick, and will continue red hot as long as any fluid remains in the bottle, and, in this condition, it will readily vaporize the substance in solution, minute particles of which are thus scattered throughout the atmosphere. A bottle holding two ounces will throw out a constant stream of vapor for about 16 hours, at an expense not exceeding twenty cents.

Lupus Retarded by the Galvano-Cautery.—An obstinate and extensive case of lupus of fifteen years standing, involving the right and left alæ nasi, under the observation of Dr. D. W. Cheever, at the Boston City Hospital (*Boston Med. and Surg. Journal*), was relieved by the judicious use of the galvano-cautery. When the patient was discharged, the edges of the ulcer presented healthy granulations, no new tubercles or ulcerations having appeared.

Fractures of the Femur and Lower Extremity.—Dr. Stromeyer (*British Med. Journal*), in his ambulance at Flo ng, close by Sedan, where a good deal of hard fighting took place, treated then thirty-four fractures of the femur, and in twenty-four there was a prospect of cure; four were doubtful cases, and only six died. His table of results in fractures of the leg is also very satisfactory. Out of thirty-one fractures of tibia and fibula, or both, caused by gun-shot injury, only three died, while the result was doubtful in six instances.

Tracheotomy in Croup.—Prof. Steiner, of Prague (*Am. Journ. of Obstetrics*), in a paper on "Tracheotomy in Croup," translated by John C. Jay, Jr., M.D., N. Y., says the wound requires treatment in many cases. When its neighborhood is much infiltrated, and when, in consequence of the subsequent necrosis, more or less loss of tissue obtains, he ordinarily uses a solution of potass-chlorat. (½ to 1 drachm to 3—4 oz. water) applied by means of little dossils of charpie. The greatest cleanliness is necessary in the removal as soon as possible from the wound any secretion which may have been expelled from the trachea. If the loss of tissue undergoes a gangrenous degeneration, he uses, instead of the chlorate of potassa, chloride of lime combined with the internal administration of a preparation of quinine with acids and wine.

The Cephalotribe.—In a recent discussion on the application of the cephalotribe by the members of the Phila. Obstetrical Society, Dr. Ellwood Wilson did not credit the statement of those physicians who reported successful deliveries with it in pelves whose conjugate diameter ranged from two to one and a half inches.—*Am. Jour. of Obstetrics.*

Encysted Hydrocele.—Dr. Guersant (*Med. News and Library*) observes that this form of infantile hydrocele consists in a small tumor, of greater or less size, developed in the course of the cord. It does not produce any change of color of the skin, is fluctuating and transparent, more or less resisting, slipping readily between the fingers as they grasp it, descending when we endeavor to bring down the testicle, and again mounting upwards towards the ring when we relinquish our hold. This is a proof of its undoubted connection with the cord of the testicle. This tumor is developed without appreciable cause, does not produce pain, remains a long time stationary, and sometimes increases in volume. It never terminates in any alarming manner. It should not be confounded in children with varicocele, for he has never observed these venous dilatations in the youngest children, and he makes the same remark in regard to hæmorrhoids; neither should it be confounded with a hernia, for it does not pass back into the abdomen. The surgeon should be aware, however, that false encysted germs, very rare tumors having special characters,—non-transparency, for example,—are met with in this region. In encysted hydrocele, the simple injection of alcohol has generally been sufficient to produce a cure. A small seton, introduced in the same way as in an abscess, has also given good results, without very intense inflammation and without any recurrence.

Chloral in Senile Gangrene.—Dr. J. C. Butcher, North Lewisburg, Ohio (*Leavenworth Med. Herald*), publishes a case of senile gangrene, in which the administration of chloral had a magical effect in giving rest to the patient. Previously, morphia was given by hypodermic injections, and vomiting followed the next day after its administration. He finds that small doses of chloral produce the same effect as large ones. His formula is as follows:—℞. Chloral, ʒ i.; simple syrup, ℥ j. M. Dose, a teaspoonful every hour.

Treatment of Albuminoid Disease of the Kidney.—Dr. James H. Hutchinson, Physician to the Pennsylvania Hospital (*Medical Times*), says that the treatment of these diseases differs from that usually employed in other forms of Bright's disease. There is no indication to increase the flow of urine, for it is already sufficiently free, and the dropsy which is present depends simply upon the condition of the coats of the blood-vessels, which allows the ready passage of serum through them. The indication is rather to endeavor to prevent the loss of albumen, and with this view he prescribed to two of his patients ten grains of gallic acid, four times daily, and for the older one, since he had a syphilitic history, ten grains of iodide of potassium, also three times daily. In the case of a boy, with the troublesome symptom, gastric irritability, he resorted to the use of lime-water and hydrocyanic acid and morphia. In many cases it resists every remedy, and, by the vomiting it induces, undoubtedly hastens the fatal issue, especially when diarrhœa exists at the same time—a coincidence which is by no means unfrequent in cases similar to these. These symptoms depend, he says, probably upon the disease of the blood-vessels of the stomach and intestines.

Diphtheria.—Dr. James E. Reeves, Wheeling, W. Va. (*The Med. Times*), states that experience has abundantly satisfied him that the use of strong caustics is not advisable in the treatment of diphtheria—that in numerous instances they aggravate all the symptoms, and

thus greatly endanger the patient. The tinctura ferri chloridi may be applied in full strength to the diphtheritic patches and to the surface around their borders, by means of a camel's hair pencil; but even this practice he has generally abandoned during the last five or six years, and now contents himself with gargles or the atomized spray of the chlorine and iron mixture (℞. Potass. chlorat. ʒ ij.; acid hydrochloric puri, ʒ iss.; aquæ, ℥ vij.; tinc. ferri chloridi, ℥ j. M.) every hour or two when the patient is awake. At the same time this mixture may be internally administered, in the dose of from twenty drops to a teaspoonful, with or without a little simple syrup, every two or three hours, with the addition, if need be, of sulphate of quinia. Warm atomized inhalations of the chlorine and iron mixture, according to the above formula, promise, he thinks, the greatest hope in cases of diphtheritic croup.

Labor Occurring with a Large Ovarian Cyst.—A case of this character is published by Dr. J. C. Reeve, of Dayton, Ohio (*Am. Practitioner*). The patient, aged 28 years, with a large ovarian cyst on the right side, was delivered, before the operation of tapping, of a healthy male child weighing seven pounds. About two months and a half after delivery ovariotomy was performed, and the cyst removed. Its weight, including fluids and solids, was 87 pounds. The patient died. Mr. Clay, of Manchester, in reporting a case of the kind, in which he tapped during pregnancy, and in which, ten days after labor, rupture of a large cyst into the bladder occurred, with recovery, says:—

"I have diagnosed nearly two thousand cases of ovarian disease, but in the whole of that experience I have only seen two cases of pregnancy co-existent with extensive ovarian disease.—

Treatment of Gonorrhœa by Warm Water Injections.—Dr. John O'Reilly (*Am. Practitioner*), in recommending warm water injections in the treatment of gonorrhœa, says that the subjoined conclusions may be drawn from his experience: 1st. That gonorrhœa yields to local treatment, and even water injections. 2d. That water injections or medicated lotions owe their efficiency to their frequent application. 3d. That the common small syringe should be done away with in treating this disease, and none used but those throwing a continuous stream. 4th. That large injections, by fully distending the mucous membrane of the urethra, insure a speedier cure than those less copious.

Sulphate of Bebeeria in Chronic Inflammation of the Uterus.—A writer in the *American Practitioner*, having had his attention directed to Dr. Merrill's article upon "Uterine Diseases" in this Journal, in which he advocated bebeeria as a deobstruent in these disorders, was induced to prescribe it in a case of disordered menstruation, with profuse leucorrhœa in the intermenstrual periods. At first he gave three grains of the sulphate of bebeeria, with one-eighth of a grain of the extract of *cannabis sativa*, three times a day—subsequently the quantity of bebeeria in each dose was increased to four grains, of hemp, to half a grain. This treatment was commenced just after a very painful menstruation. The next period was almost painless, the patient not finding it necessary to remain in bed during it. The improvement up to the present time has been constant, and he has every reason to believe it will be permanent. The treatment was continued for two months.

Results of Excision of the Tonsils.—Guersant, of Paris (*Med. News and Library*), alludes to the positive results of excision of the tonsils in children. Deaf children sometimes hear after the operation; while those who speak indistinctly often pronounce much better. Those who sing gain also in clearness of voice, although it is true that though some adult vocal artists have gained, others have lost. Finally, and this is one of the greatest advantages resulting from the operation, those who have narrow chests breathe more freely; and the ribs, from being depressed as they were before, frequently return to their normal condition, and the chest assumes its proper health.

The Management of Sebaceous Tumors.—Dr. Guersant, Paris (*Med. News and Library*), does not hesitate to say that as the bistoury sometimes induces erysipelas, he has relinquished the use of cutting instruments in extracting wens, seated on the hairy scalp, the face, and especially the eyelids, and applies to all, indiscriminately, the Vienna caustic, unless they are seated on the inner surface of the lid, when the knife will be required to remove them. These cysts are laid bare by the slough produced by the caustic, and sometimes disappear without further interference. The cicatrices following these operations are regular and not prominent, but they differ from those consequent on incisions, by being a little longer delayed in their formation.

The application of the caustic should be made by means of gum resin plaster, with which rather more than the mere surface of the tumor should be covered. Before doing this, however, an oval or linear opening should be made in the centre, of a shape and size corresponding to that we wish in the skin, for the discharge of the cysts. The Vienna paste is then applied over the surface thus exposed.

Cholera Infantum.—Dr. Galloupe, of Lynn, Mass. (*Boston Med. and Surg. Journal*), has employed with good success the following combination as diet in cases of cholera infantum: cream, one tablespoonful; water, four tablespoonfuls; lime water, one tablespoonful.

Plugging the Posterior Nares Preliminary to Operations on the Cavities of the Face is recommended by M. Verneuil, as calculated to obviate the necessity of withholding an anæsthetic in operations of this character, on account of the danger of blood flowing into the air-passages during the unconsciousness of the patient.—*Gaz. Méd. de Paris.*

Gonorrhœa Treated without Injections.—Dr. A. Given, of Louisville, Kentucky (*The Am. Practitioner*), for the past twelve years has treated successfully gonorrhœa in all its stages without injection, as follows: The majority of his cases recovered in from two to eight days, without any of the unpleasant symptoms which so often occur when injections are used. After a full dose of sulphate of magnesia, the patient is directed to take the following:—Balsam copaib., sweet spts. nitre, paregoric, āā one oz.; Norwood's tr. of veratrum, one dr. M. A teaspoonful every four or five hours until the acute symptoms abate, when a dose every eight hours for a few days is nearly always sufficient to effect a cure. Locally the patient applies cloths wet with cold alum-water constantly to the penis until pain and heat subside. He has found the foregoing treatment well adapted to both the acute and chronic stage, but most useful in the earlier periods of the affection.

Solution of Santonine.—Dr. John Harley, of London, gives, in the February number of the *Practitioner* a formula for making a solution of santonine. This remedy, as it is well known, being nearly insoluble in simple cold or hot water, and to a very limited extent only by chloroform, absolute alcohol, the strongest

acetic acid, turpentine, hot olive-oil, and hot glycerine. The following are his directions:—

℞. Santonini, in pulvere, gr. xij.
Sodæ bicarbonatis, gr. xx.
Aquæ destillatæ, ℥ iij.

Put the soda and water into a flask, keep the fluid near the boiling-point, adding, as it disappears, about two grains of the santonine at a time, until the whole is dissolved. Solution is effected in about half an hour, during which time the water is reduced to ℥ ij. If need be, reduce by boiling to this bulk, when ℥ j. will contain a full dose—six grains. If an alkaline reaction be objectionable, neutralize with acetic acid. The solution is of a bright color and permanent, strongly alkaline, free from odor, and, excepting that of carbonate of soda, of taste. It may be diluted to any extent with hot or cold water. Excess of acetic acid, after some hours, and mineral acids immediately, precipitate the whole of the santonine. A pleasant mixture may be made by adding to the solution a little syrup and flavoring water.

Erotomania.—Dr. R. L. Parsons, Resident Physician of the New York City Lunatic Asylum (*The Journal of Psychological Medicine*), in an interesting article on "Erotomania," says that this affection has been observed in persons of both sexes, and of ages ranging from childhood to an advanced period of life. Women are much more subject to all forms of the disease than men. Whatever may be the cause or form of the disease, there is always an impairment, and sometimes a marked perversion, of one or more of the mental faculties. Cases of self-abuse, in which there is no such impairment, should not be included under the disease. Erotomania is usually classified as one of the forms of emotional insanity. Insane delusion may or may not exist. The voluntary power is always weakened. There is often melancholia, with extreme depression, both mental and physical, and in these cases there is usually a suicidal impulse, which is sometimes very strong, and may be accompanied by a desire for self-mutilation. The suicidal impulse probably arises from the conflicting and painful emotions caused by a sense of shame and moral degradation, and a feeling of utter inability to resist the debasing sensual impulses and desires. Among the causes of the sentimental form of this disease may be enumerated—a life of indolence; the reading of sentimental and voluptuous romances; a lack of the habit of self-control, especially of the emotions; too great seclusion from the society of the opposite sex; and the habit of self-abuse. These same causes are also efficient in the production of aidoiomania, the physical form of the disease. Cutaneous eruptions, pruritus, hemorrhoids, ascarides, amenorrhœa, ovarian disease, lack of cleanliness, and erethism, are also efficient local causes in the production of aidoiomania.

Wherever there is an evident exciting cause, the obvious indication for treatment is a removal of the cause. Hence all local sources of irritation are to be removed; habits that act as causes are to be combated; the general health and tone of the system are to be improved; and proper physical and mental employment are to be provided. The brain is also at fault, and hence we can rarely secure the co-operation of the patient. For this reason constant watchfulness and other measures of restraint are required to prevent a continuance of evil habits. If self-abuse be either a result, or both a cause and result, it is absolutely essential that the habit be prevented. This point is unfortunately very difficult of attainment. Among the means of prevention, confinement of the hands, and local applications that produce a considerable degree of pain and soreness, are worthy of a trial. In several cases in which there was an excessive erethism of the external genitals, an ablation of the clitoris and of the labia minora has been followed by the most satisfactory results. In cases of erotic mania, marriage has been advised as a means of preventing an otherwise fatal result. When this is impracticable, an attempt may be made to substitute another object for the affections.

Glosso-Labio-Laryngeal Paralysis.—Prof. William A. Hammond, M.D. (*Jour. of Psychological Medicine*), states that to Duchenne belongs the credit of the discovery of the malady, as also of its latest working-up; for he has recently gone over the ground again, changing the name of *glosso-laryngeal paralysis to glosso-labio-laryngeal paralysis*. This is quite a rare affection. Prof. Hammond has seen altogether in the city of New York eight cases of the disease. The treatment of his published case consisted in the internal administration of strychnia as follows: ℞ Strychniæ sulphatis, gr. j.; quinine sulphatis et ferri pyrophosphatis, āā ℥ j.; acidi phosphorici diluti, ℥ ij.; syrup. Zingiberis, ℥ ij. M. S. A teaspoonful in a wine-glass of water three times a day; together with the application of the primary galvanic current to the base of the brain three times weekly, and the application of the induced or Faradic current to all the muscles of the buccal cavity, the lips, and the muscles of expression which are involved in the disease.

The tongue is commonly first affected. The patient discovers that he cannot clearly articulate the linguo-dental consonants. A little later he is unable to raise the tip of this organ to the roof of the mouth, or to employ it to keep the food between the teeth in mastication. Soon the first act of deglutition becomes difficult—the alimentary mass cannot be readily carried back and pressed against the constrictors of the pharynx; and finally the tongue lies utterly inert on the floor of the mouth. With reference to the causes of glosso-labio-laryngeal paralysis, very little is known. Age seems to exert a predisposing influence on the development of the disease in question. The patient alluded to in this paper is the youngest on record to manifest it, being but thirty-two years of age. It has been positively stated that the disease never appears under the age of forty-five. In this case Prof. H. was unable to discover any probable cause. One of his patients, a very small man, fifty years old, dated the origin of his malady to some one's coming up behind him and lifting him by his head, "to show him London." A number of instances where incurable affections were brought on by this same silly trick have been noted by Prof. Hammond. The prognosis is wholly bad. Of some forty cases of the disease, fully reported, every one has gone on steadily, or with only slight remissions, to a fatal termination.

In regard to the question of treatment, Prof. H. tells patients there is no use in it; and for only one of his former cases has he attempted to do anything with any hope of cure; in this latter case the improvement was only temporary, and soon the current ceased to elicit any response. Phosphorus and strychnia are the only agents that promise to be of any service, and if a patient insists upon being treated, the physician may employ them to give him a transient respite or to alleviate his distress.

Electrolysis.—Dr. A. D. Rockwell, New York (*N. Y. Med. Journal*), refers to the relations which the very interesting and suggestive phenomena recorded sustain to the practical application of electrolysis in the treatment of disease, which are not sufficiently understood to render the subject a complete or exact science.

Clinical experience teaches that living is more readily electrolyzed than dead tissue. This is accounted for from the fact that living tissue is capable of the process of absorption, and that its solutions are warmer and therefore better conductors. When, therefore, a tumor capable of being electrolyzed is submitted to the action of the galvanic current, a threefold action is produced. I. Its fluid constituents suffer decomposition. Hydrogen and alkalies, soda and potassa, go to the cathode, and oxygen and acids to the anode. While electrolytic action thus takes place at both poles, it is evident that this action is most vigorous and more readily produces absorption in living tissue at the cathode. At the anode, however, decided chemical action takes place, and successful results are obtained by it. But since electrolytic action is modified by the composition of the electrolyte and the character of the poles, it is probable that a more extended clinical experience will establish more definitely the important fact that some conditions of disease are most successfully treated by the positive, and others by the negative pole. II. Absorption is hastened by the chemical effects of the current and the mechanical and irritating effects of the needles, and may slowly continue for weeks. III. Disintegration and atrophy take place. If the part acted on by the current be a small wen, wart, or nævus, the tissue may become changed in color, dried and shrivelled, and almost entirely disappear during the operation.

In treating the various forms of tumors, aneurisms, and varicose veins, serous effusions, wounds, and ulcers, both poles may be made to operate simultaneously; or, if only the negative pole is used, the current is completed by placing the positive, connected with a sponge-electrode, on a neighboring part.

The Removal of an Inverted Womb.—Dr. Thomas Hay, of York, Pa. (*Med. and Surg. Reporter*), lately removed an inverted uterus with an intramural fibrous tumor of the fundus. Four weeks afterward the patient was up and about her room, and the operation bade fair to be a perfect success.

Toxical Effects of Hydrate of Chloral.—Dr. Nathan R. Smith, of Baltimore, Md. (*Boston Med. and Surg. Jour.*), describes a singular affection of the fingers of both hands, attended with desquamation of the cuticle and superficial ulceration, especially about the borders of the nails, following the use of chloral, in liberal doses, as a hypnotic.

This distinguished Professor also reports two deaths in Baltimore, manifestly from the toxæmia caused by an overdose of chloral. These cases are, it appears to him, amply sufficient to establish the toxical effects of this powerful agent. It is probable that its poisonous effects are exerted in two ways.

1st. When given in a large dose, and especially when the system may have been charged with it by its previous administration, it at once overwhelms the powers of life, and causes immediate death. Upon what organ or organs does it exert its deadly effects? It must be either upon the heart or the brain, perhaps on both. It is believed that chloral, entering into the blood, develops chloroform in that fluid—the amount developed being determined, not merely by the quantity taken, but by the condition of that fluid. 2d. It appears, when given in small doses, and continuously for some time, to induce a form of toxæmia similar to that caused by the continued administration of ergot. Its effects on the fingers of both hands, in the two cases related, would justify such a belief. It is well known that animals fed on spurred rye suffer gangrene of the extremities.

If chloroform, developed in the blood from chloral, is productive of such disastrous effects, primary and secondary, he inquires, Can the direct inspiration of chloroform be as innocuous as it is thought to be? In closing, the remark is made: "Whoever will take the trouble to look over the medical journals and retrospects of the last two years, will discover that pyæmia, or septicæmia, occupies far more space in surgical records than it did before anæsthetics were so generally employed.

Club-Foot from Spinal Lesions.—According to M. Michaud, club-foot may be caused either by muscular spasm during the latter half of fœtal existence; malposition, whereby some portion of the fœtus acts mechanically in arresting the development of the limb; or paralytic, and caused sometimes in such cases by changes in the substance of the cord. Recently M. Vulpin, speaking in his lecture of the muscular changes in club-foot, remarked that probably these alterations depended upon spinal lesions, and two microscopic observations by M. Michaud tend to confirm this opinion.

In the case of the first patient who had an equinovarus accompanying paralysis, the autopsy showed fatty degeneration of the muscles of the calf, and atrophy of the cord, with disappearance of nerve-cells from the anterior cornuæ, these latter lesions being most marked in the cervical and lumbar regions.

The second case was one of congenital club-foot of the equine variety. The fresh cord appeared normal, but, after section and staining with carmine, a limited myelitis at the inferior portion of the cervical region was apparent, the anterior cornuæ being displaced by the development of the white matter.

In a female who had a congenital luxation of the hip, with atrophy of muscles, M. Vulpin found the cord altered. Surrounding the central canal was a proliferation of connective tissue, as shown by the process of staining with carmine, and which extended into the cornuæ, and separated them from the central gray matter.—*Lyon Medical.*

Treatment of Hydrocele by Injection of Chloroform and Compound Tincture of Iodine.—Dr. Moses Barrett (*Trans. Wis. State Med. Soc.*) reports a case of hydrocele of the left testicle, in which about 4 oz. of fluid were drawn off, and the following mixture injected into the sac:—℞. Chloroform and comp. tinct. iod., of each 1 drachm; aqua, ad 1 oz. This was allowed to remain between three and four minutes. Sharp pain in the scrotum and back was experienced, with nausea and faintness. There was, for a few days, some swelling and tenderness of the scrotum, which was relieved with a lotion of acet. plumb. The recovery was perfect.

Tænia Mediocanellata.—Prof. Joseph Leidy, M.D., of Philadelphia (*Proc. Academy of Natural Sciences*), made the following remarks on *Tænia mediocanellata* at the March meeting of the Academy of Natural Sciences:—Recently, one of the ablest and most respected practitioners of medicine submitted to his examination a tapeworm which had been discharged from a young man after the use of the *aspidium filix-mas.* The patient had been previously treated for another affection, in which raw-beef sandwiches had been prescribed for food. After looking at the worm, Dr. Leidy remarked that it appeared to be the *Tænia mediocanellata*, a species which he had not before seen, and added that the patient had probably become infected from a larva swallowed with the raw-beef sandwiches. The specimen consisted of the greater part of the worm, broken into several pieces. Including some lost portions, it was estimated to have been upwards of thirty

feet in length. Unfortunately, the head proved to be absent; but, so far as characters could be obtained from the specimen, in the form of the segments, position of the genital orifices, and the condition of the ovaries, it agreed with the description given of *T. mediocanellata* rather than with *T. solium*. From a want of acquaintance with the former, he did not feel entirely satisfied that the specimen actually belonged to that species. Subsequently his friend brought to him the anterior part of the body, probably of the same individual tapeworm. He observed that his patient continuing to complain, another dose of the male-fern was administered, which was followed by the expulsion of the portion of the worm shown. The head of the parasite was included, and it confirmed the view that it pertained to the *Tænia mediocanellata*. The case serves as another caution against the use of raw flesh as food.

Osseous Tumor united to a Molar.—W. G. Beers, L.D.S. (*Canada Journ. Dental Science*), gives an illustration representing an hypertrophy of the cementum united to the first inferior molar, left side, which was removed from the mouth of a young nun, aged 17, at one of the convents in Montreal. The tumor had been gradually increasing in size for some years without causing any pain until a few weeks before its extraction, when a dull ache was felt, similar to that connected with periodontitis. There was no perceptible discharge or tenderness. The tumor distended both the inner and outer sides of the alveolus, and disfigured the cheek. The crown of the tooth was perfectly sound and well developed. A section of the tumor showed it to be cementum—weight, seven and a half pennyweights.

Infantile Hydrocephalus.—Dr. Hugh Carmichael (*The Doctor*), in a pamphlet on this subject, shows that the disease has too often been improperly treated, from the too prevalent idea that it depends on inflammation. This idea he forcibly combats, holding that it is far more often due simply to irritation, and will yield to calmatives judiciously administered. He relates cases in which children, apparently moribund, have recovered under calmatives, such as digitalis, cherry-laurel, etc. In some cases he has employed opium.

Cancer.—Dr. G. Von Schmitt (*The Doctor*) blames the authorities of the Middlesex Hospital for not giving him the run of their cancer wards to try his vaunted method, by which, he says, "more than one-half could be saved—completely cured." The editor of *The Doctor* says that the following remark does not encourage us to pin our faith to the writer: "Does there really exist a cancerous virus? To this question I answer without hesitation—yes, there exists a cancerous virus as a syphilitic one. What is the nature of this virus? It is an organic animalcule like the syphilitic virus, and the product of a morbid alteration; but in cancerous affections, it must be admitted in principle that it is much easier of development without pre-existing seed, by the concourse of circumstances, which depend upon the state and the exercise of the functions of the weakest and most sensible organism." His new method consists in the use of a diet-drink internally, and certain applications to the part. The principal drugs used are celandine, a plant belonging to the papaveraceæ and quaco, to the Eupatoriæ, and of which the author seems to have learned the value from the Japanese or Malays. With these and galbanum, myrrh, petroleum, etc., he makes ointments and plasters, which he dignifies with names taken from the Malays, viz., calfonia, cabbazazer, ankalkakkit, kurawaif.

Bony Anchylosis Treated by Subcutaneous Section of the Bone.—Louis Stromeyer Little, F.R.C.S. (*The Doctor*), read a paper before the Royal Medical and Chirurgical Society, London, giving an account of a case of bony anchylosis of the knee-joint in a child aged fourteen, in whom the limb was fixed at a right angle. The anchylosis was divided subcutaneously by means of a carpenter's chisel, and by an extending apparatus the limb was straightened so as to allow of locomotion three weeks after the operation. The author discussed the plan of dividing the long bones by means of a saw for the cure of deformity, and concluded that for bony anchylosis of the knee-joint subcutaneous osteotomy by means of a saw is impracticable. The case is believed to be the first instance where subcutaneous osteotomy has been performed in England for the relief of bony anchylosis of a large joint.

Raw Beef in the Vomiting of Pregnancy.—James S. Bailey, M. D., Albany, N. Y., writes:—In October last I was called to see a female patient, aged nineteen, three months advanced in pregnancy. She stated she had been unable to retain anything she had eaten during the last three days; that she had vomited more or less every day from the time of conception. She now was so much exhausted that she was unable to sit up.

A careful investigation of her case convinced me that the irritable condition of her stomach was entirely due to reflex action.

The raw beef was immediately suggested to my mind as likely to be retained, as I had several times previously employed it successfully in similar cases. I ordered my patient to take teaspoonful doses of raw beef, chopped fine, at intervals of three hours, with a little Cayenne pepper and salt sprinkled upon it.

At first the idea of eating raw meat was quite repulsive, but upon tasting it it was not found to be so disagreeable.

After the second teaspoonful was taken the vomiting ceased, and during the day the nausea disappeared.

My patient not only acquired a taste for this food, but rapidly improved in flesh and appearance, without a recurrence of this troublesome symptom.

Hypodermic Injection of Morphia in Dysentery.—Cases of dysentery cured by hypodermic injections of morphia alone are recorded by Dr. Thomas J. Gallagher, of Pittsburgh, Pa., in the *N. Y. Medical Journal*. The pain and tenesmus are instantly relieved by this method and the cure is much quicker than by the usual procedure; also the administration of frequent doses of nauseous drugs obviated. From one to two injections, mostly but one, daily, is all that is required.

Velamentous Insertion of the Cord.—Dr. Jas. T. Whittaker, of Cincinnati (*Cin. Lancet & Observer*), observes that cases of velamentous insertion of the cord have always been regarded as of great rarity. Spalth, of Vienna, had detected it but four times in one thousand placentas. Spalth had also remarked that although usually such cases offered no anomaly in the progress of the labor, yet instances had occurred wherein they had become pathological by a rupture of the vessels of the cord, by implication in the "break" of the membranes.

Complete Excision of the Astragalus and Os Calcis.—Dr. T. G. Morton, of Philadelphia (*Am. Journ. Med. Sciences*), presented a case of excision of these bones, at a meeting of the College of Physicians and Surgeons. A very perfect recovery followed, both as regards motion in the new joint, and in the usefulness of the foot, which was shortened about one inch.

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MEDICAL PROGRESS.

MEDICAL progress is not always in the right direction; sometimes it goes in a circle, and leads us, at the end of a term of years, to the same standpoint in matters of practice with that occupied by our predecessors. Medicine, like philosophy, has been vexed with a love of change; too often for change's sake, under the promptings of a lively imagination and in ignorance of what has been done in the past. Framers of mongrel systems and would-be reformers impose on the ignorant crowd their obscure utterances and inane dogmatisms as real discoveries and inspirations of genius; and they indulge themselves in the illusion that they are quickening medical progress, while, in reality, they are retarding and obstructing it by the crude materials which they collect, without knowledge or discernment. But notwithstanding these and additional impediments interposed by the rank growth of noisome empiricism, poisoning where it professes to heal, true and legitimate progress in medicine was never so conspicuous nor so much accelerated by zealous efforts and generous rivalry as at the present time. A slight sketch of the advances made in the several departments of medicine, in little more than the last fifty years, while reminding us of the extent of the domain in process of cultivation, may serve, also, to incite to renewed efforts for further improvements, and to remind us of the many blank spaces left in medical education. No attempt will be made—none could be expected, in our narrow limits, even if the requisite ability were enlisted—to give a critical history of the several steps by which the present high vantage-ground has been gained. The few additional points suggested in making our sketch will not, it is hoped, be thought out of place by our readers.

Disease in every form and variety is now scrutinized with a method and precision beyond all former precedent. Its intricacies and mysteries are being revealed by an advanced diagnosis, which to the study of disorder of the circulation and morbid physiognomy in the facies, decubitus, state of the brain and senses, and inspection of the excreta, now adds a detection of new or previously unexplained symptoms by applied physics and chemistry. With the aid of scopic, acoustic, and metric instruments, some of them invented for the purpose, the clinical inquirer is enabled to inspect the internal organs by looking into the cavities and seeing their textural changes. Thus, by the same means through which the field of observation of the entire organism is enlarged, a nicer appreciation of its several parts is gained. During the period, and it is not a long one, between the invention of the stethoscope and that of the ophthalmoscope, what a number of ingeniously devised instruments and apparatus have been brought into use for extending diagnosis! The learned touch has also its aids for a better cognizance of the pulse and temperature of the body by the sphygmograph and the thermometer. Chemistry is conjoined with microscopy in our examination of the morbid changes of the blood and other animal fluids, and a knowledge is thus obtained of the extent of the metamorphic phenomena which are both the causes and results of disease. Histology, by the same means, has given us the cell-doctrine, which lies at the foundation of minute anatomy, physiology, and pathology. Hardly had this doctrine obtained general credence, when an important modification of it is made in admitting that the nucleus of the cell may be eliminated, and the cell itself shown to contain a living albuminoid substance, a life-stuff, "protoplasm," out of which, in successive evolutions and developments, the whole organic world is formed. Experimental *physiology* continues with increasing activity and definiteness of purpose its explorations on mooted questions in the processes of assimilation and disassimilation, and in the offices performed by certain portions of the nervous system. Among other points, we have yet to ascertain beyond dispute the part performed by the liver in the making of sugar, and by the kidneys in the forming of urea and the urates. Great progress has been made in ascertaining the true functions of the several parts of the nervous system, as, for instance, in determining those of the sensitive and motor divisions, and the excito-motory for reflex action. Attention has been more particularly directed to the central organs,—the encephalo-spinal axis,—the great origin of nervous power and laboratory for its generation, and through which mind and motion are made manifest. Cerebral physiology still shows progress in localizing to some extent the functions of different portions of the brain, as faculties of the mind. The first systematic attempts with this view, in which the connection between cerebral development and functional activity was pointed out, were made at the beginning of the century by Gall and Spurzheim; and although these innovators were not quite successful in forming a complete system of mental philosophy, they opened the way and set the example for further investigations which have enriched cerebral physiology. If we find, through microscopic anatomy, in the nerve-cells of the brain the material cause, if not explanation, of volition and thought, it remains for us to determine the conditions

for the fullest cell-growth, and how far cerebral nutrition can be modified, as in the supply of the phosphates, to meet functional requirements. We are left also yet to discover the changes wrought in the nerve-cells by mental exercise.

Materia Medica has made wonderful progress, chiefly by large additions and in part by substitutions, within the period of our present sketch. In the former are chlorine, iodine, bromine, and their alkaline and metallic salts; also the acids—benzoic, carbolic, gallic, hydrocyanic, hydroiodic, sulphurous, tannic, and valerianic—with their basic combinations. From vegetable tonics and narcotics have been procured the alkaloids—quinia, morphia, strychnia, etc.; and thus we get the active principles in small bulk, and easily administered, from the crude and heterogeneous substances in which they had been buried and concealed, to the great gain of our therapeutics on the score of precision and power. But in substituting these alkaloids for the articles—barks, roots, leaves, or extract—from which they are obtained, it must be remembered that they do not represent all the active properties and medicinal effects of these articles, which contain other principles besides the alkaloids, and of these in some cases more than one. Quinia is, for the most part, an efficient substitute for Peruvian bark, but it is not an entire equivalent to this latter, which will cure intermittent fever when quinia and other cinchona alkaloids and their salts fail. So also of the sedative and hypnotic effects of morphia, as compared with those of opium. What a boon in these later times has been granted to us in the anodyne and sleep-procuring properties of morphia, hydrate of chloral, and bromide of potassium! What an almost divine gift in the discovery of anæsthesia being produced by the inhalation of the ethers, nitrous oxide, and the chlorinated compounds! Additional evidence of progressive medicine is found in the more philosophical application of electricity, electro-magnetism, and other modifications, to the cure of different diseases of the nervous and muscular systems, anomalous chronic affections of the viscera, and morbid growths. By induction it becomes also an important diagnostic aid in distinguishing the different kinds of palsy, and the real from the feigned.

Materia Alimentaria rests on a better foundation than before, in its nicer appreciation of the different kinds of food, and the relatively nutritive properties of their several proximate principles. Food, ceasing to be regarded as exclusively a hygienic substance, is not held back in reserve until the violence of the disease is subdued; but its administration forms a part of our therapeutical treatment, not only to repair but to prevent waste, and thus preserve the integrity of the organs from destructive metamorphosis. Milk, now more than ever, is acknowledged to be in a high degree both nutritive and medicinal, and to be our most reliable resource in a large number of chronic maladies, and a sustaining febrifuge in fevers of the most malignant kind. Cod-liver oil, which of late years has brought such a powerful reinforcement to the Materia Medica, is entitled to a high place in the alimentary department, for supplying lost fatty matter in chronic diseases with defective nutrition and emaciation. Both animal and vegetable substances are now prepared for ready use in a concentrated form, to keep unchanged for long periods and in all climates; and thus valuable additions are made to military and naval hygiene and to hospital supplies, and the restorative comforts of the convalescing invalid at home.

Hygiene has made considerable advances in determining not only the best means of preserving health, but also of preventing disease in crowded populations as well as in individuals: the selection of proper food, and a better appreciation of the effects of the circumfusa in regard to noxious airs and gases, and the discovery of various disinfectants and deodorizers, systematic ventilation, etc. Meteorology, now carefully studied by scientific observers in all parts of the earth, gives a rich record, from which hygiene cannot be slow to borrow. Medical climatology, embracing an inquiry into the operation of atmospherical, marine, and geological agencies on the human frame, offers a wide field for observation, with a view of our learning, with some degree of certainty, the precise climatic conditions on which an invalid may hope for permanent relief. Among the earliest writings on medicine are those relating to the influence of climate on the physical and mental character and diseases of the inhabitants; but the progress of improvement in a better knowledge of the subject has not been by any means commensurate with the lapse of time and increased scientific appliances. Where shall we send our patients laboring under phthisis? is a question to which no satisfactory answer can yet be given. Increasing importance is attached to hygiene, which, in its full measure of application, teaches people how to live for the preservation of their health, and with it the acquisition of personal comfort and greater probability of usefulness and long life. But, while recording progress, we are obliged to acknowledge that this has not been accelerated by full or regular instruction in the medical schools of our country at large. There is in most of them a blank to be filled in this particular. People ought not to wait for their compulsory attention to the subject by the attack of every epidemic and nearly all endemics, which bring with them a stern rebuke for neglect of the laws of hygiene. Cholera has been the best cleanser and scavenger of cities and towns, by its inciting their inhabitants to sanitary reform: much yet remains to be done both by corporate bodies and individuals, who must be enlightened and encouraged in no small degree by medical journalists, who are left to be their chief teachers on the subject. Diseases become preventable to a great extent by persistence in systematized public and private hygiene.

Pathology has been called the science of disease, and

t is advancing at such a rate as to afford good promise of its meriting this designation, by its ascertaining the precise characters of morbid changes of structure and derangements of function, and the circumstances, both external and internal, under which they begin and terminate. Morbid anatomy, the last stage in pathological researches, and too apt to be regarded as pathology itself, is cultivated with rare patience, perseverance, and minuteness unknown in former times. By the aid of microscopy and chemistry, the different elementary forms of amorphous and malignant growths and degeneration of tissue, and changes in the blood and other animal fluids, are revealed; and although these discoveries may not furnish positive indications for therapeutic guidance, they do good negatively, by showing the fallacious, if not actually mischievous, effects of previously accredited medication. Humoral pathology, in abeyance for a time during the reign of solidism, is again in the ascendant, and rests now on accumulated evidence, contrasting in the clearness of its demonstration with the old doctrine of peccant humors. Under the general name of blood poisoning, we find the etiology of many of our worst forms of febrile and other diseases. Additional light has been thrown on the nature of gout, tubercle, cancer, and scrofulosis, and hopes are entertained by philosophical observers that rational pathology will lead to "a specific treatment of each diathesis, founded on an exact knowledge of the physiological laws of its manifestation." The inoculation of tubercle and the subsequent infection to which it gives rise are worthy of notice as indicative of pathological progress, and as serving to aid us in the etiology of consumption. If pathology is to merit the title of the science of medicine, it must be in its bringing together, in one connected series, etiology, diagnosis, and morbid anatomy—an exhibition of the phenomena of disease from its inception to its close, and of the structural changes which it has left. Mere dead-house pathology, which shows us these latter, goes but a little way towards a solution of the problem of disease: it furnishes an element in the investigation, but it has no valid claim to represent the whole complex series. In the many fields for pathological research continually offered, none can attract us more than diseases of the brain. Great as have been the advances in this study during the period which we are now slightly sketching, the field is still open for further explorations. Cerebral pathology, in its largest acceptation, has been studied with a patience and careful observation, and an enlarged spirit of philosophy, which have brought us to a better knowledge and more enlightened treatment of insanity.

Medical Psychology has been brought in as a timely assistant in teaching us to compare the healthy with the morbid state of mind, and to note the gradual conversion of the one into the other. We learn, at the same time, how to bring back the eccentricities, wanderings, and more violent disorders of the mental faculties to their original equilibrium. Improved semeiotics, by an incorporation of the initiatory signs or prodromes of insanity with the symptoms indicating the wear and tear of body and mind, will enable a discerning physician to adopt timely preventive measures against the explosion of mania, in the one case, and a softening of the brain, with imbecility and paralysis, in the other.

Therapeutics has received large additions, but cannot be said to have made decided progress on fixed principles of universal experience and recognition. The means to carry out the various indications for the treatment of disease are more numerous and powerful than they ever were before; but we are still unable to predicate of the symptoms a selection of remedies specially and certainly adapted to the cure. Great changes, amounting to revolutions in practice, have been effected of late years. Blood-letting and the reducing treatment in nearly all its details have been put aside in favor of free if not indiscriminate stimulation; but this extreme change is only a revival under another hypothesis, with a greater show of organology, of the Brunonian practice, which bore such extensive sway at the early part of the present century. Mercury, not long ago deemed to be indispensable in the treatment of many diseases, is now decried as dangerous and hurtful. A question may be put, in no skeptical mood, whether the now popular therapeutics will not give place to a restoration, in a modified form, of the depleting and mercurial practice? Are there not already more than inklings of a beginning reaction in this matter? Fluctuations of opinion on the *modus operandi* of old remedies still retained evince activity in the search, although the true end may not have been reached. Digitalis, for example, still prescribed in diseases of the heart, ceases to be recommended as for any alleged sedative in morbidly increased action and hypertrophy, but claims our faith in its utility as a tonic in feeble states of this organ. Quinine retains its place as the favorite antiperiodic, but when given, as it is, in the phlegmasia, it must be to meet new indications not contemplated under its previous use. Arsenic is given in a more extended circle of diseases than formerly, and in some of those of the skin it takes precedence of all other remedies. We see now both quinine and arsenic, and iodine and bromine, with their compounds, replacing to a considerable extent mercury as an alterative in numerous chronic diseases. Water, as an indispensable staminal principle, of which so much of the animal frame is composed, and to the textural formations and metamorphoses and the functions of the organs it largely contributes, must always engage attention as an agent of hygiene. Its use therapeutically, also, has always been recognized, and in later times has acquired vogue in connection with the limited and exclusive doctrine of hydropathy. A wide field still remains open for experimental observations on the Watery Regimen and Balneology, for the purpose of establishing correct principles to encourage and guide us

in directing the use of water in a long list of diseases, both acute and chronic. Of a kindred nature, and promising still more marked and varied therapeutical powers, are the waters of mineral springs, so bountifully spread over the surface of the globe, and particularly abundant in different regions of the United States. There is a rich literature on this subject in France, Germany, and Italy, from which much might be drawn for our guidance at home, in addition to what has been contributed by a few American writers. The Journal of the Waters of Baréges, edited by Barthez in the last century, ought to find imitations among us at this time, when the fever of journalism is at such a height. Physicians residing at the different springs can do good service in this way.

Pharmacology has aided therapeutics by introducing new and delicate processes for the separation of the active principles of drugs from the crude matters in which they were imbedded, and for rendering their administration more easy and efficient. Reference has been already made to this point when speaking of the advances made in Materia Medica. Among the many examples of the fact we may mention the fluid extracts, as compared with the ordinary extracts and syrups. We may also speak of the readiness with which the most powerful medicaments, the alkaloids, for instance, are introduced in their concentrated strength into the organism by subcutaneous or hypodermic insertion and injection, itself a strong evidence of therapeutical progress.

Surgery continues in the line of progress, and at the same time of reform, which has distinguished it since the time of John Hunter in the last century. In its plastic and orthopædic departments it shows itself to be eminently conservative in the saving of limbs and other parts, and in the removal of deformities. Much is due for these results to an increasing knowledge of pathology—a better appreciation of the connections between the constitutional disorder and the local injury, and a clearer insight into the recuperative powers of the several parts of the organism. Much also is due to the endless ingenuity in the devising and successful use of instruments, and of the mechanical helps to meet every fresh exigency. In cases for surgical intervention, not only the how, but the when and the wherefore are questions to be carefully and conscientiously studied before an operation is performed.

Obstetrics, no longer a mere art, is making good its claims to be regarded as a science, while Gynæcology opens out the way to an extended series of observations on the infirmities and diseases of women, and of inquiries into the modifications of their moral nature, caused by the peculiarities of their physical organization, and, *e converso*, the influence of their mental on their bodily constitution. The trouble and anxiety of the accoucheur are increasing with the greater delicacy of the female frame and predominance of the nervous temperament in civic life, owing to a neglect of the laws of hygiene; especially in relation to air, exercise, and food during girlhood, or the formative period of sexuality. Either the physician is not consulted, as he ought to be, or he fails to exercise his ever-reserved privilege to give earnest and unmistakable advice for the education of the young of both sexes. Not the least interesting feature of medical progress is the increase of specialties in the separate study and practice of particular branches of medicine or surgery. Thus we have ophthalmologists, aurists, orthopædists, syphilographers, dermatologists, etc. Fears may well be entertained that this minute subdivision of subjects and addiction to one of them exclusively will lead to a neglect of the vital connection and sympathies of the chosen organ with the rest of the organism, and their reciprocal influence on each other. It must, at the same time, be admitted that the specialist gives a thorough investigation of his subject, and acquires a greater readiness in the details of practice than the general practitioner.

Clinical Medicine, regarded by some as different from old-time practical medicine, is essentially the same thing, as both are wrought out at the bedside of the patient, whether he be the sole occupant of a sick-chamber, or one of many in the wards of a hospital. But clinical medicine of the present day, as the convergescence of the radii representing the several branches of medicine, direct and collateral, is illuminated in proportion to their greater and increasing light. We have, in consequence, a more thorough and more carefully prepared diagnosis of disease, and a more careful selection, after critical examination and comparison, of the therapeutical appliances for its cure. We cannot be secure against all danger of intruding hypotheses, but a more jealous vigilance is exercised to resist their introduction. The attempt made to give clinical medicine somewhat of a mathematical bearing, by what has been called the numeral method, has not been successful. The phenomena of disease and the effects of remedies are too fluctuating and unstable to be measured absolutely by notation, as a means of reaching positive conclusions which shall guide for the future in determining the true nature of the disease and its correct treatment. Clinic medicine and clinical teaching exhibit better methods of investigation than ever before, but the curative process is attended with the same difficulties and uncertainties that were noticed in our speaking of therapeutics. What a contradiction in the treatment of the same disease of similar classes of patients in the same city is exhibited in the clinical returns of two London hospitals, in one of which milk, and in the other alcohol, were the chief remedies for typhus fever!

Medical Jurisprudence is enlarging its boundaries and increasing its efficiency for the detection of crime and the protection of the wrongfully accused innocent. But, while we have American treatises of the highest order on the subject, we look in vain for full systematic instruction in a medico-legal course in our medical schools, as an integral part of their curriculum, and a branch of medicine a knowledge of which is indispensable for the attainment of a degree.

Reviews and Notices of Books.

OPIUM AND THE OPIUM APPETITE. With Notices of Alcoholic Beverages, Cannabis Indica, Tobacco and Cocoa, and Tea and Coffee, in their Hygienic Aspects and Pathologic Relations. By ALONZO CALKINS, M.D. Phila.: J. B. Lippincott & Co. 1870. 12mo. pp. 390.

THE habit of using opium and other stimulants is now so rife with the American public that a special literature on the subject seems to be demanded. There is no doubting the fact that there is being developed a great interest in the general subject. Scientists, political economists, moralists, and indeed almost every class of the thinking community, seem anxious to contribute their moiety of facts toward the solution of the great problem of our civilization. The journals teem with analyses and statistics; medical men still contribute the results of their experiments upon the lower animals, and their observations upon the human family; the results of the treatment in asylums, etc., etc. Facts from every quarter are eagerly received, whether from the scientist proper, the sensational writer, or the jobbing legislator. The work before us partakes, in reality, neither of the strictly scientific, the sensational, or the ethical—it is in fact a strange and unsystematic mixture of the three, presenting the general and professional reader simply with an array of significant facts; nothing more. In the matter of historical data the author shows an extent of study very praiseworthy in itself, but there is such a want of arrangement, of generalization, and of perspicuity; such a number of Latin quotations, more for the sake of displaying the author's knowledge of the classics than for any other purpose, that the great object of making the work attractive and interesting to the reader is totally defeated. These circumstances are to be the more deplored as very many, if not the majority, of the experiences of the sufferers have never before appeared in print. A labored study of them proves the old story, that the opium habit is easy to form but almost impossible to break. It has seemed to be the design of the author to minister more to the wants of the general reader than to the physician, as many assertions are dogmatically made which are not accepted by the profession in general, while many others are referred to as settled which, in reality, have no scientific significance. But after all the work may serve a good purpose in warning such as may be tempted to invite the dangerous habit of opium eating of the terrible ordeal through which they must of necessity pass. The relative effects of the different poisons, opium, alcohol, tobacco, cannabis indica, etc., are truthfully described, but here as in the other parts of the work there is a strange want of that scientific analysis of the facts which is of such interest to every unprejudiced searcher after truth.

Reports of Societies.

[*Official.*]

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 14, 1871.

DR. A. L. LOOMIS, PRESIDENT, in the Chair.

DR. ROGERS, on behalf of the Committee on Microscopy, reported the specimen presented at a previous meeting by Dr. Lente to be an intestinal concretion.

DR. FINNELL completed the history of the renal cyst presented at the last meeting by stating that it contained twenty-eight ounces of a highly albuminous liquor.

CYANOSIS.

He next exhibited the heart of a boy five years of age. The patient had been cyanosed since birth, finally anasarcous, and sank into a comatose condition, in which he died. At the autopsy a communication an inch in diameter was discovered between the two ventricles. During life a very distinct murmur was recognized.

WILL QUININE PRODUCE ABORTION?

DR. CARO presented a fœtus with envelopes accompanied with the following history:—The patient from whom the specimen was discharged was a lady forty-three years of age. She was married in her twenty-eighth year. In the course of a year she gave birth to a child; a year after she had a miscarriage, and two years after another child. Since that time until her conception, a few months since—a period of eleven years—she has had no children. During the whole of her married life she has enjoyed good health. In January last she ceased to menstruate, but her menses occurred again in the course of the two months following. Since then she menstruated about every three weeks, and was menorrhagic. In April the breast presented the characteristic areolar appearance. Although pregnancy was suspected, no positive diagnosis could then be made. The month after, profuse menstruation again appeared. Dr. Caro then made a careful vaginal examination, but fearing to introduce the sound, he was unable to decide whether the uterine contents was the product of actual conception, or a tumor. But in order to prevent flowing, the fluid extract of ergot was prescribed in five-drop doses every two hours. No success attended this treatment. Having noticed that Dr. Angelo Monteverdi in a recent Italian journal recommended quinine as an active and efficient emmenagogue, Dr. Caro determined to try its effects. He accordingly procured some of the fluid extract of cinchona and administered it in teaspoonful doses in warm water every four hours. After the third dose the uterine contents were discharged. He also mentioned that Dr. Sayre had published in the *American Practitioner* a somewhat similar case in which quinine was administered, and in which the result was equally prompt.

On examining the specimen the fœtus was comparatively dried, and the rotundities of the limb and body were flattened. There was no amniotic fluid in the sac. The placenta was fatty.

DR. LENTE remarked that he had met with a case in which the same condition of fœtus was present, due to the previous dribbling of amniotic fluid at the commencement of each catamenia. It was evident that the production of miscarriage was the only hope, and Dr. Sayre had advised him to try the quinine as an emmenagogue. Although miscarriage occurred, he could not say that quinine had any direct effect in producing it.

DR. ROGERS called the attention of the Society to the evidences of intra-uterine inflammation of the fœtus, shown by numerous adhesions of contiguous parts of the body.

DR. LOOMIS referred to a case of a lady with incipient phthisis to whom he had given, during the last four months of her pregnancy, ten grains of quinine daily. The quinine arrested the development of the phthisis, thus fulfilling the indications; but it exercised no influence upon the uterus, as a fine healthy child was born at the full term.

DR. C. C. LEE states that he had frequently given

large doses of quinine to women in the earlier months of pregnancy, who were suffering from malarial poison, and had never seen any bad effects in the shape of miscarriage. He had in such cases not unfrequently given thirty or forty grains a day.

Dr. Newman stated that Dr. Sayre had reported two cases in which quinine seemed to act as an emmenagogue. In neither of these was it claimed that the remedy induced abortion, but that it aided uterine contractions when abortion was threatened.

Dr. Cabo said that Dr. Monteverdi affirmed that quinine would bring on miscarriage in any case, and that it was consequently dangerous to administer it to pregnant women.

Dr. Rogers remarked that he had frequently given quinine in large doses to women in all stages of pregnancy, but had never met with a miscarriage as the result.

OVARIAN TUMORS.

Dr. Lente exhibited a polycystic ovarian tumor removed by operation from a patient of the Woman's Hospital. The pedicle was very short and thick, and was secured by silver wire (cobbler stitch) and dropped back. In the neighborhood of the ligature there was a mass which looked very much like a portion of intestine, and at first it was supposed that such had been included in the ligature. But the gentlemen present finally concluded that such an accident was under the circumstances impossible, and the wound was closed. She died very shortly after from exhaustion. The darkish looking mass supposed to be intestine was found at the autopsy to be the result of a circumscribed subperitoneal effusion of blood, extending from the point indicated, to the diaphragm. The amount extravasated was not more than two or three ounces. There were no evidences of peritonitis anywhere, neither of pyæmia.

LITHOTRITY.

Dr. Lente also presented two specimens, removed respectively from old men who had been the subjects of lithotrity.

The first case, while suffering from tertiary syphilis, developed symptoms of stone. Dr. Van Buren performed lithotrity upon him. Subsequently, having some difficulty in urination, the patient was advised to use the catheter. This he did for a while, but he became quite careless in its employment, and would sometimes neglect it altogether. Some time after the operation he received a severe fall which jarred him very much, and this resulted in the development of symptoms of peritonitis and the appearance of a tumor in the right lumbar region. There was considerable difficulty as to the precise nature of the tumor, Dr. Van Buren being of the opinion that it was syphilitic. The patient afterwards put himself under the care of Prof. Thompson, and finally came to Dr. Lente. The urinary difficulty increased as well as the tumor, and the patient finally sank and died.

At the autopsy the tumor was found to be caused by the right kidney, which was much enlarged and infiltrated with a cheesy-looking material. Dr. Lente was of the opinion that this organ was the seat of tuberculous deposit. The ureter of this kidney was impervious throughout. The left kidney was comparatively healthy. The liver was cirrhosed. The bladder, on account of the objections of the friends, could not be removed, but it was found, by passing the finger into its cavity, to contain a bloody fluid, and the mucous membrane of the organ to be disorganized and apparently destroyed. Three phosphatic calculi were also discovered, and at the bottom of the bladder, in the neighborhood of the prostate, were felt small hard processes which appeared to be cancerous.

CHEESY DEGENERATION OF ABSCESSES.

Dr. Keyes, who assisted at the autopsy, was of the opinion that the cheesy deposit in the kidney was the result of an abscess. He believed that the outgrowths, which were for the most part situated around the internal orifice of the urethra, were syphilitic.

Dr. Loomis was of the same opinion as Dr. Keyes in regard to the deposit in the kidney. It was very rare for a tuberculous kidney to appear independently at that age.

Dr. C. C. Lee, in connection with this deposit, referred to the acknowledged cause of what is erroneously called scrofulous testis, that condition being in reality nothing more than the cheesy degeneration of pus formed originally either by primary abscess of the scrotum or of the epididymus.

Dr. Loomis remarked that this same cheesy degeneration occurs in the pus of catarrhal pneumonia, and is so often referred to the deposit of tubercles. This cheesy deposit may exist any length of time in the lung-tissue, or it may soften and give rise to ulceration and gangrene, forming the third stage of phthisis.

Dr. Keyes referred to a case of abscess of the antrum, in which by long imprisonment the cheesy degeneration had occurred, and had in its turn been changed into a tough, whitish, dry, elastic material, very much resembling india-rubber.

LITHROTITY, RENAL ABSCESS, ETC.

Dr. Lente presented a second kidney removed from the second case upon which lithotrity had been performed. The operation was done in October last. Everything progressed favorably except that there was a difficulty in introducing the catheter, on account of an enlargement of the middle lobe of the prostate; also that there was a slight attack of cystitis. After a time pain in the right lumbar region appeared, and extended through to the epigastrium. It was at first supposed to be muscular, but the patient becoming more and more anæmic, and the pain continuing, the urine was examined for albumen and casts. His micturition was quite frequent. Finally the urine became entirely suppressed, and the patient rapidly lapsed into a semi-comatose condition. Dr. Loomis, who saw the case in consultation, supposed it to be one of Bright's disease. Digitalis was advised, and after the free administration of the infusion the urinary flow returned in the course of twenty-four hours. Dr. Lente mentioned that in connection with the infusion he had made use of a poultice of the leaves of digitalis around the whole trunk of the patient. A week after this the patient had a similar attack of suppression and died.

In the situation of this pain over the kidney, Dr. Lente, after persistent efforts, detected deep-seated induration and finally fluctuation. It was evidently to his mind caused by a peri-nephritic abscess. Having satisfied himself on this point, he passed an exploring needle through the tissues of the part for a distance of two inches and succeeded in evacuating a quantity of healthy matter.

At the autopsy, the right kidney was found the seat of fatty degeneration, its pelvis was much dilated, and at its posterior portion was perforated. The perforation was situated two and a half inches to the right of the median line, and under the twelfth rib. It communicated with the fistulous track left by the abscess. At the most dependent portion of the dilated pelvis was a small uric acid calculus.

Dr. Lente, in regard to the evacuation of deep-seated

cavities containing pus, remarked that, with the exception of Bowditch and Rayer, no one had recommended the practice. He believed that it was the true principle to evacuate pus wherever found, especially when, as in the case just cited, there was danger of the discharge of an abscess into the peritonæum.

Dr. Post believed that the law to evacuate pus wherever found was well established.

Dr. Lente, in connection with this last case, referred to one which occurred to him some years ago. He diagnosticated calculus. Shortly after, the man in jumping from a height sustained a severe jar, and became paraplegic. This condition was then followed by retention and unconsciousness. Fluctuation was then discovered over the right kidney, and an opening was made and pus evacuated. The man subsequently recovered.

Dr. Lee remarked that the occurrence or non-occurrence of casts was of much less importance in regard to prognosis, in cases of Bright's kidney, than the estimation of the quantity of urea excreted. When there was a marked diminution in urea there was always danger, while this was by no means the case when casts were present. Again, it was well known that Bright's disease could progress steadily, and yet few if any casts show themselves.

Dr. Loomis stated that, within the last six months, he had made a sufficient number of investigations to enable him to assert that, in the majority of cases of Bright's kidney, where no casts showed themselves, they could be made to appear in the course of forty-eight hours after digitalis had been administered in diuretic doses. This latter, in the shape of infusion of the leaves, in ℥ss. doses, was the only reliable remedy to wash out the uriniferous tubes.

Dr. Keyes remarked that the specific gravity of the urine of Dr. Lente's second case was not low at any time.

REAPPEARANCE OF AN EPITHELIAL GROWTH THIRTY YEARS AFTER AN OPERATION.

Dr. Mason presented an epithelial growth, removed a few weeks before from the right side of the lower lip of a man aged 70 years. The point of interest about the case was, that just thirty years ago an operation for the same trouble was performed upon the same locality. He had repeatedly met with cases in which from a few months to four or five years had elapsed before the reappearance of the disease, but none in which there was such a long arrest as in the present instance.

OBSTINATE SECONDARY HEMORRHAGE.

Dr. Newman presented two specimens, the main interest in each being centred in the occurrence of troublesome and profuse secondary hemorrhage. The first was a tumor of the scapula, removed from a gentleman aged 26. The history seemed to prove that the growth was congenital, and that it had gradually increased, so that up to the time of the operation it had acquired the size of an orange. There was never any particular pain in the part, and its removal was requested because, from its situation, it gave the patient a hunchbacked appearance. The diagnosis was quite difficult. In general physical appearance it resembled a fatty tumor, but was a little too soft. The patient was seen by Dr. Sayre, who succeeded in making the diagnosis of encysted tumor. This conclusion was arrived at from the fact that in pinching the growth, the thumb and fingers almost met through the substance. The operation was performed January 22, with the assistance of Dr. Mason. The intention was to take out the cyst entire, but before this was accomplished the cyst burst, discharging a dark, grumous-looking fluid. After considerable dissection, every portion of the wall of the sac was removed. It was necessary to ligate three arteries, when bleeding ceased entirely. Dr. N. was satisfied at the time that every bleeding point was secured. The wound was then closed with silver sutures, followed by adhesive straps and a compress bandage. Shortly after the operation blood began to trickle through the bandages, and the patient was found lying in a pool of blood. The wound was opened and found to be filled with clots. The source of the blood was an exceedingly small vessel. This was with difficulty secured, and it was two months before the wound was healed by granulation.

The second case was a tumor of the labia majora. The bed from which it was removed was an inch and a half in depth. The nourishing artery of the part was twisted, and the hemorrhage ceased. There were occasionally small hemorrhages until the fourth day. These were in turn controlled by compresses, and all danger of further bleeding seemed to be at an end. On the twelfth day, however, an alarming secondary hemorrhage occurred, which reduced the patient in a short time almost to syncope. This was arrested, after a good deal of trouble, by the application of plugs saturated with persulphate of iron.

Dr. Lente thought it a good plan in such cases to introduce through the sides and into the bottom of the wound, by means of curved needles, two sutures crossing each other, and then pursing the tissues by tying the ends of these sutures together. This was a plan adopted by Emmet with great success.

Dr. Newman remarked that the wound in his case was too deep to allow of such a procedure.

Dr. Post presented two fœtal lambs joined together by the dorsal region. There was only one head. The specimen was sent him from Turkey.

The Society then went into Executive Session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, July 6, 1871.

Dr. E. R. Peaslee in the Chair.

The minutes of the last meeting were read and approved.

A reporter of the *N. Y. Times* being present, the President requested him to withdraw, and censured the unknown member who had invited him to be present.

NEW VENTILATOR.

Dr. W. F. Thoms exhibited a new variety of ventilator, to be used with advantage for summer and winter ventilation, with drawings descriptive of the same.

FRACTURES AND DISLOCATIONS OF THE ODONTOID PROCESS.

Dr. Stephen Smith read a paper on "Fractures and Dislocations of the Odontoid Process," showing the immense strength of the process and the tenacity of the ligaments surrounding it. He remarked that fractures of this bone are more common than generally supposed. There are three varieties of fracture—occurring generally in syphilitic and scrofulous patients:—

1st. Those occurring from spontaneous causes. 2d. Those resulting from direct violence, such as blows and gunshot wounds. 3d. Those occasioned by sudden movements of the head.

Fractures of the process are usually associated with fractures of the atlas and axis. Cases occasionally recover permanently, but generally with anchylosis, and

sometimes with a false joint. Fractures may occur at the base of the process, and thus liberate it. Dr. Smith presented 22 cases in all; of these 19 were males and 3 females; 19 died, and 3 recovered. The longest period which a fatal case lived was 27 months. The oldest patient was 60 years, the youngest six months. The speaker said that the statement that persons who had been hung usually had fracture of the odontoid process was incorrect. The prognosis is generally favorable when immediate displacement does not occur. The treatment consists in supporting the bone, by position and by external appliances. Dr. Smith referred to the important medico-legal aspect of these fractures.

In the discussion which followed, Dr. A. C. Post said that he had never met with an unequivocal case of this fracture.

Dr. B. Howard asked at what age and in what sex cases most frequently occur.

Dr. Smith answered in middle life, and in males.

Dr. Joel Foster inquired if Dr. Smith knew of any cases resulting from lifting children by the ears. Dr. Smith answered affirmatively.

Dr. Howard remarked that in several examinations of criminals who were hung he had never met a case of this fracture.

The President spoke of the strength of the occipito-axoid and other ligaments as a prevention against fractures and dislocations.

Dr. Smith mentioned the ease with which fractures may occur during life in healthy people as being remarkable, when we consider the great degree of artificial violence required to produce fracture after death.

Dr. A. C. Post thought that the reason why fractures of the odontoid process were so rare after hanging, was because the noose was applied below the second cervical vertebra. Dr. Smith agreed with him.

The President referred to a paper prepared by Dr. Vincentis Luis Ferrer, of Havana, on the best methods of preserving vaccine virus, the paper being transmitted to the Academy by Dr. Giovanni Ceccarini, of New York. Specimens of vaccine virus accompanied the paper. The paper and specimens were referred to the "Committee on Vaccination," and the thanks of the Academy tendered to Dr. Ferrer.

The Academy then adjourned till the third Thursday in September.

AMERICAN OTOLOGICAL SOCIETY.*

The fourth annual meeting of the Society was held at the Ocean House, Newport, R. I., July 19, 1871, at 10¾ o'clock, A.M., the President, Dr. H. D. Noyes, in the chair.

Present—Drs. H. D. Noyes of New York, O. D. Pomeroy of New York, John Green of St. Louis, H. G. Newton of Brooklyn, C. J. Blake of Boston, W. W. Morland of Boston, J. Orne Green of Boston.

The minutes of the last meeting were read and approved.

The President appointed Drs. J. Green, Pomeroy, Morland, Newton, and Blake as a committee on the nomination of new members, nomination of officers, and as an executive committee. This committee reported the nomination of the following gentlemen:—

Drs. Samuel Sexton of New York, R. M. Bertholet of Philadelphia, Robert Willard of Boston, George B. Pomeroy of New York.

By a suspension of the by-laws these gentlemen were elected by a *viva-voce* vote, and Drs. Sexton and Bertholet took their seats as members.

The following bulletin of business was submitted to the Society, and as each paper was read it was referred to the publishing committee:—

I. Report on the Progress of Otology. Dr. A. H. Buck of New York.

II. Case of Horny Growth from the Auricle. Dr. A. H. Buck of New York.

III. Necrosis of the Mastoid Cells in immediate neighborhood of Ext. Auditory Meatus. Dr. Charles Laight of New York, through Dr. Buck.

IV. A singular case of Nervous Deafness treated unsuccessfully by Galvanism. Dr. R. F. Weir of N. Y.

V. Tumor of the Cavity of the Tympanum with Otitis Media Serosa. Dr. R. F. Weir of New York.

VI. Some cases of Polypus and their Treatment. Dr. W. W. Seely of Cincinnati.

VII. Exhibition of Anatomical and Microscopical Specimens. Dr. C. J. Blake of Boston.

VIII. Case of Abscess of Cerebellum. Dr. W. W. Morland of Boston.

IX. A Case of Reproduction of the Membrana Tympani. Dr. H. W. Spencer of St. Louis.

X. On the Conclusions to be drawn from the Secretions in Chr. Purulent Inflammation. Dr. Charles J. Pardee of New York.

XI. Results of the Aural Examination of 60 Lunatics. Dr. O. D. Pomeroy of New York.

XII. Investigations on Inflation. Dr. O. D. Pomeroy of New York.

XIII. Fibrous Tumor of the Auricle with Photograph. Dr. R. M. Bertholet of Philadelphia.

XIV. On Atomizing Apparatus. Dr. H. D. Noyes of New York.

XV. Five cases of fatal Otorrhœa, with remarks on the course by which they become fatal. Dr. J. Orne Green of Boston.

A vote of thanks was given Dr. Blake for the pleasure afforded the Society in examining his cases of specimens illustrating the minute osseous anatomy of the ear.

At 2¼ o'clock, after the reading of the eleventh paper, the Society adjourned till 5½ o'clock, P.M.

SECOND SESSION.

The Society was called to order by the President at 5½ o'clock, and the minutes of the first session were read and approved.

The resignation of Dr. H. L. Shaw as Corresponding Secretary was received, and being understood to be absolute, was on motion accepted. It was moved and voted that the committee on nomination of officers be instructed not to nominate a corresponding secretary.

The reading of the papers was then concluded. It was voted that the rules in regard to assessments, the revision of proofs, and adjournment, be the same as adopted last year. The committee on the nomination of officers reported the following list:—

President—Dr. H. D. Noyes.

Vice-President—Dr. E. L. Holmes.

Secretary and Treasurer—Dr. J. Orne Green.

Publishing Committee—Drs. R. F. Weir, Dr. C. E. Hackley.

Committee on Progress of Otology—Dr. C. J. Blake.

All of whom were duly elected.

The minutes of this session were read and approved. The resignation of Dr. A. D. Williams as a member of the Society was reported by the secretary and accepted by the Society. Adjourned 7½ P.M.

An Old Practitioner.—Dr. Theophilus Clark, of Tinmouth, Vermont, ninety-eight years old, is still practising.

* The report was received too late for last number.—*Ed.*

Correspondence.

MEDICATED BOUGIES FOR GONORRHŒA.—THE TREATMENT OF HEADACHES, ETC.

To the Editor of the Medical Record.

Sir:—I notice in a recent number of the Medical Record, some remarks on the use of "Medicated Bougies in Gonorrhœa." For over ten years I have used medicated urethral bougies in the treatment of this disease, and also of gleet, but, I must confess, with not much better success than I obtained from the use of astringent injections carefully and faithfully employed. At first I used pipes of astringent substances, but found them objectionable on account of their friability, breaking off in the urethra, etc. I then formed bougies out of a rod of lead of the proper thickness, by cutting them the required length, carefully rounding the extremity of each; and after splitting the top of the bougie to the extent of a quarter of an inch, the ends were flattened, as in Fig. 1. Then by punching a hole in two narrow strips of isinglass plaster placed crosswise, and thrusting the rod through the opening thus made, a lead urethral bougie is formed, which may be used alone, or medicated with astringent or sedative substances. Before the bougie is introduced it should be dipped into warm oil or water; and after its insertion the strips of isinglass plaster are to be moistened and applied to the glans penis. In this manner the bougie is firmly secured in place, and, if necessary, the patient can pursue his ordinary avocations without interfering much with the treatment. In some cases the simple introduction of this lead bougie has been found of use. By immersing it in acetic, nitric, or other acid, until a coating of the compound thus produced was obtained, and then inserting it into the urethra (allowing it to remain from a few minutes to one or more hours), a speedy cure has in some cases followed. I have sometimes with advantage coated a smaller bougie with carbonate of lead, mixed with cocoa-butter to a consistence hard enough to admit of introduction into the urethra, and yet to melt at temperature of body. In this way the extracts of opium, belladonna, hyoscyamus, etc., tannin, and the various astringent preparations of lead, zinc, etc., may be introduced. Soluble substances may be combined with a solution of gelatine, and the bougie dipped into this preparation until a sufficient coating is obtained. The advantage of this mode of treatment is its convenience, as well as the certainty of having the astringent or sedative substance in constant contact with the affected parts; but invariable success is no more to be expected from this than from any other method.

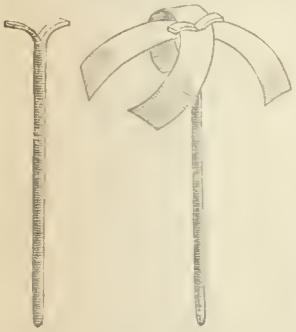


Fig. 1. Fig. 2.

Headache.—Of course, in the treatment of this affection, whether it be idiopathic or symptomatic, the most important indication is to discover and remove the cause. But among the various remedies used for its relief, it would seem that the application of heat and cold has not received the attention it deserves. Now, instead of applying to the *head* a cloth wrung out in cold water, or an evaporating lotion, a more rapid and much better effect can be produced by the same applications applied to the *neck;* or a piece of intestine of the required length may be filled with ice-water or pounded ice, and wrapped like a collar round the same part. Should it be necessary to use cold to the head, a "beef-bladder" filled with ice-water or ice (the neck of the bladder being tied round a cork) is a most efficient and clean mode of employing it. Heat may be applied in a similar manner, and will often succeed when cold fails to produce relief. The hot water may be put into a bladder, or into a rubber bag closed by a clamp, which may be obtained at a moderate cost. As a counter-irritant, I prefer a plaster made of freshly powdered capsicum to that of mustard, as it is quite as efficient, more cleanly, and may be left on for a number of hours without blistering the tenderest skin. In a case of severe nervous headache the happiest effect may sometimes be obtained from a capsicum plaster placed over the nape of the neck, shifting it when necessary, or when it becomes unbearable, to the forehead or between the scapula, at the same time constantly applying to the face sponges squeezed out in *very hot* water. By this means the headache has often been quickly relieved, the patient falling asleep, and waking free from pain. When the headache is accompanied by throbbing in the carotids, temples, or forehead, a sensation of fulness, pressure, or heaviness over the eyes, a "pumping headache," as it is sometimes called, prompt relief may sometimes be obtained by cold applications to neck, and a capsicum plaster or hot application to epigastrium. If there be much nervous excitement, with a quick, irritable pulse, small doses of tincture of digitalis or of aconite will be of service. For the irregularity of pulse and other symptoms accompanying a throbbing or "pumping headache," especially if there be giddiness, flushing of the face, etc., one-twelfth or one-sixteenth gr. doses of extract of belladonna every two or four hours will be found invaluable. For persons of studious, sedentary, or intemperate habits, headache, particularly the variety known as *Clarus*, will generally yield to the acetate of strychnia, extract of nux vomica, or extract of ignatia amara. In nearly all cases the judicious employment of cold or heat will greatly facilitate the treatment, and of themselves often suffice to cure.

Colic.—In cases of simple uncomplicated colic I know of no remedy so effectual and so speedy in giving relief as the tincture of nux vomica, in two-drop doses every hour. Rarely more than two doses are required, when aided by a warm bath, or a hot bran poultice over abdomen.

I have hastily written these items, which, if you think worthy of a space in your valuable journal, are at your service.

Your obedient servant,

C. J. Cleborne, M.D.

St. Alban's Place, Gray Ferry Road, Pa., Aug., 1871.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from August 5, 1871, to August 18, 1871, inclusive.

Mills, Madison, Surgeon.—By S. O. 165, Headquarters Department of the East, Aug. 4, 1871, granted leave of absence for 30 days.

Campbell, Jno., Surgeon.—By S. O. 309, Headquarters of the Army, A. G. O., Aug. 10, 1871, leave of absence extended 40 days.

Wright, Jos. P., Surgeon.—By S. O. 172, Headquar-

ters Department of Dakota, July 31, 1871, granted leave of absence for 30 days.

Towns, F. L., Surgeon.—By S. O. 172, Headquarters Department of the East, assigned to duty as Post Surgeon, Fort Preble, Me.

Gibson, Jos. R., Assistant Surgeon.—By S. O. 304, A. G. O., Aug. 5, 1871, leave of absence extended 3 months.

Cowles, Edw., Assistant Surgeon.—By S. O. 172, Headquarters Department of the East, authorized to avail himself of leave of absence granted in S. O. 224, A. G. O., current series.

Buchanan, W. F., Assistant Surgeon.—By S. O. 167, Headquarters Department of the East, Aug. 7, 1871, directed to comply with orders assigning him to duty at Fort Hamilton, N. Y. H.

Middleton, P., Assistant Surgeon.—By S. O. 171, c. s., Department of the South, when relieved by Assistant Surgeon Pope, to proceed to Lexington, Ky., for duty at that post.

McElderry, H., Assistant Surgeon.—By S. O. 308, War Department, A. G. O., Aug. 10, 1871, relieved from duty in Department of Texas, to proceed to Baltimore, Md., and, on arrival, report by letter to the Surgeon-General.

Miller, G. McC., Assistant Surgeon.—By S. O. 171, Headquarters Department of the South, Aug. 11, 1871, directed to proceed to St. Augustine, Fla., for duty at that post.

Azpell, Thos. F., Assistant Surgeon.—By S. O. 148, Headquarters Department of Cal., Aug. 3, 1871, assigned to duty as Post Surgeon at Camp Halleck, Nev.

Pope, B. F., Assistant Surgeon.—By S. O. 171, Headquarters Department of the South, Aug. 11, 1871, assigned to duty at Elizabethtown, Ky.

Delany, A., Assistant Surgeon.—By S. O. 92, Headquarters District of New Mexico, July 31, 1871, assigned to temporary duty at Fort Union, N. M.

Medical Items and News.

Roosevelt Hospital.—An examination of candidates for the position of senior and junior assistant to the Roosevelt Hospital will be held at the house of Dr. Robert Watts, 49 West 36th Street, on Tuesday, Sept. 12th, at 8 P.M.

Candidates must have passed their final examination for the degree of Doctor of Medicine.

Applications may be addressed to Dr. Erskine Mason, 113 West 44th Street.

Robert Watts, M.D.,
Secretary Med. Board.

Dr. W. W. Dawson has been appointed to the Chair of Surgery in the Medical College of Ohio, *vice* Dr. Blackman, deceased. He also succeeds the latter as Chief of the Staff of Good Samaritan Hospital.

An Old Mother.—Mrs. Betsy Hudson, of Warren, Pa., aged 65 years, recently presented her husband with a plump, healthy baby.

Death of a Poughkeepsie Physician.—Dr. Richard A. Varick, aged 66, for forty years a physician in Poughkeepsie, N. Y., was found dead in his bed on the morning of August 10th.

Change of Climate as a Curative Measure for Consumption.—E. Holden, M.D., Newark, N. J. (*Am. Jour. Med. Sciences*), in his interesting paper on "Ostracism for Consumption," says that, after all, change of climate, invaluable and promising as it is as a curative measure for consumption, must yet fall far short of general applicability, since its successful prescription implies *means*, and means in abundance.

For a patient to leave home without near and dear friends would be madness, but without ample means it is suicide; and worldly and paradoxical as it may seem, there has been no truth more strongly forced upon him than that life, like every other blessing, is purchasable with money.

The Earliest Advocate of a Woman's Medical College.—The late Dr. Bartholomew Fussell, of Chester Springs, Pa., a prominent member of the Society of Friends, was the earliest advocate of the education of women as physicans in this country, and as far back as 1840 instructed a class of women in medicine. He was also one of the founders of the Women's Medical College in Philadelphia.

Newfoundland Cod-Liver Oil.—This cod-liver oil has gone up in price lately, owing to the immense demand for it in Europe, and now it is sold to the merchant at the rate of 130 cents a gallon. Last year 330 tuns of it were exported, the value being 260 dollars per tun. Of the common cod oil, unrefined, 4,521 tuns were exported, the value being 144 dollars per tun.

Croup.—The first account of this disease in the English language, by this name, is to be found in a letter from Dr. Patrick Blair, of Cupar Angus, to the celebrated Dr. Mead, of London, dated July 6th, 1713.

The Oldest Man in the World.—The oldest man in the world has just died in Poland. He was named Semen, and lived in Podolia, on the estate of the Princess Cretwertinska. He recounted the events of 1767, when he was a soldier. He had just entered his 139th year.

The First Administerer of Oil of Turpentine in Tænia.—Dr. Walker, of Leeds, England, in 1812, addressed a letter to the London Medical Society, asserting that *he* had been, in 1798, the first to employ the oil of turpentine in tænia, and that he had given it with success in ninety cases.

Drunkenness in the United States.—It is estimated that there are in our country 600,000 confirmed drunkards—or 1 in 67 of the population; and 100,000 are yearly added to this number. During the ten years from 1835 to 1845, 300,000 persons died from the effects of intoxicating liquor; the same cause sent 100,000 to the Poor-house during that period, and bequeathed to the country 1,000,000 orphans. One thousand murders a year may be traced in this country directly or indirectly from this cause; 1,008 die from it every week.

Opium Produced in Australia.—One hundred and fifty pounds of opium, the produce of Australia, was sold in the Victoria market last year. It was of good quality, having eight to ten per cent. of morphia. The yield was from fifty to eighty-four pounds per acre.—*Pacific Med. and Surg. Journal.*

Dyspeptics.—Dr. C. A. Nichols, Supt. Gov't. Hosp'l for the Insane, Washington, D. C. (*Am. Jour. Insanity*), believes there are more dyspectics among farmers and mechanics than among lawyers, doctors, and divines. There are both a *prophylaxis* and a *vis medicatrix naturæ* in a strong brain, because strong vitality is usually associated with it.

Puerperal Insanity.—Dr. J. P. White, of Buffalo, N. Y. (*Am. Jour. Insanity*), regards sub-involution of the uterus as a frequent cause of puerperal insanity, a

condition which has been frequently overlooked; and by addressing remedies to its restoration, the best interests of patients are consulted. Hypertrophy of the uterus, in case of puerperal mania, exists in a large number of cases.

Laryngismus Stridulus.—The difficulty in finding a correct interpretation of the symptoms, and even accurate names, has been so great that the disease has become known by the name of "Kopp's asthma." Prof. Jacobi states that even this is incorrect; for Kopp, who wrote in 1830, has not been the first to give an exact description of the disease, as he was preceded by Hamilton, in 1818, John Clarke, in 1815, and Alexander Hood, in 1827.—*Am. Journal of Obstetrics.*

The Removal of a Large Intra-uterine Fibroid Tumor.—Dr. H. P. C. Wilson, Surgeon to the Union Protestant Infirmary, Baltimore (*Richmond and Louisville Med. Journal*), successfully removed from a woman, aged 43 years, an intra-uterine pedunculated fibroid tumor, weighing two and a quarter pounds. Dr. Wilson does not remember a case reported of the successful removal of a larger intra-uterine fibroid tumor.

Cases of Ovariotomy.—Of the 100 cases of ovariotomy reported by Mr. Thomas Keith, of Edinburgh, 81 recovered. In the first 50 the mortality was 22 per cent.; in the last 50 it was only 16. He remarks that the larger portion of those who died were poor, worn-out women. If there had been an earlier operation in some of them, he says, the mortality would undoubtedly have been much lower.

The Rain-fall in the United States and Europe.—The quantity of water which falls in the United States, under the form of rain or snow, not only is not less, but it equals and even surpasses that which falls in Europe. According to the most recent data there falls annually in Boston, 38 inches of water; in Philadelphia, 45 inches; and in St. Louis, 32 inches. While in Europe, the annual quantity of water which falls at a given point is in England, 32 inches; in France, 25 inches; in the centre of Germany, 20 inches; and in Hamburg, 17 inches. The number of rainy days in the United States is also not less than in Europe, with the exception, perhaps, of the British Islands and Norway. On the other hand, it appears to be greater than in Eastern Europe.—*Boston Med. and Surg. Jour.*

Quality of Water-Supply in Relation to Sanitary Condition of Towns.—Dr. Letheby read a paper recently, before the "Association of Medical Officers of Health" in London, on the above subject, and remarked that, in the course of large professional experience on this subject, his attention had been especially directed to the comparative value, in a sanitary point of view, of hard and soft waters. The result of his investigations was an unmistakable advantage in favor of a moderately hard water, such water being not only brighter, cooler, and more sparkling, but less likely to absorb organic miasms, and to become charged with living organisms. In addition to this, there was strong evidence that the calcareous matters of such waters were of physiological value to the animal system. Lake water is vapid, mawkish, unaërated as regards carbonic acid, of unstable temperature, and so prone to be loaded with organisms as to have been regarded with repugnance in all times. In proof of this he adduced the evidence of Frontinus, Curator of the Roman aqueducts in the first century, and of Fabretti, at the close of the seventeenth. At Boston, it was found that the water brought from Lake Cochituate was bad on account of animalcules. He quoted from the evidence of Mr. Homersham, C. E. (Report of the Royal Commission), to the effect that the soft water of Manchester was injurious. Among foreign authorities, Moleschott attributed frequent diarrhœa in the Netherlands to the still-running river water. Boussingault asserted that the saline substances in water were necessary for alimentation; Dupasquier, Riche, Osterlin, Poggiale, Boudet, Tardieu, Lefort, Bouchardat, Agassiz, and other eminent men, also spoke to the same effect. As to the variability of temperature of lake-water, and the uniform coolness of spring waters, the evidences of MM. Commaille and Lambert at Rome were adduced. There were, it was true, objectors, but they were few, and their statements incomplete. The best and tallest men were to be found over lime and coal formations, and drank hard water. The same was the case with the Patagonian savages, the most gigantic of the human race. Experience showed that the same was the case with cattle, sheep, and horses; the finest came from hard-water districts.

Government Commissioners in England, France, and Austria had decided in favor of hard water, and condemned the misapplication of the term "mineral impurity" to minerals found to be universally present in natural springs and streams. A more striking fact than all was the high death-rate in soft-water districts.—*Br. Med. Jour.*

Cases of Ovariotomy.—Washington L. Atlee, M.D., of Philadelphia, the successful American ovariotomist (*Am. Journ. Med. Sciences*), publishes six more cases of ovariotomy. His recorded cases now amount to two hundred and nineteen.

The Frequency of Rickets.—Dr. Parry, of Philadelphia (*Am. Journ. Med. Sciences*), is of the opinion that the frequency of rickets in this country is much underestimated. Dr. Gee has asserted that 30.3 per cent. of all the sick children coming under his observation at the Children's Hospital in London suffer from this affection. Ritter states that his investigations in the Medical Polyklinik at Prague have shown that 31 per cent. of all the children under five years of age there treated are rickety.

Dr. Parry has been for some time investigating this subject in the children's department of the Philadelphia Hospital, and he does not hesitate to assert that 25 per cent. of all the children between two months and four years old now in that institution are rickety.

Friends' Asylum for the Insane, Philadelphia.—J. H. Worthington, M.D., Superintendent of this institution, says that at the time of the last annual report, there were 55 patients remaining in the Asylum, 26 of whom were men and 29 were women. Since then 36 patients were admitted, 15 of whom were men and 21 were women, making a total of 91 who have resided there during the year. The average number under care was about 61. Of these 91 patients, 3 died and 26 were discharged, leaving 63, of whom 27 are men and 35 are women, under care at the present time. Of the 30 recent cases, 16 were discharged, 14 of whom were restored, 1 was much improved, and 1 was improved. One thousand six hundred and seventy-four patients have been treated in the asylum since its opening.

Sumach.—It is stated that the consumption of American sumach in Great Britain is over 20,000 tons per annum, and that it is yearly increasing. In the United States 3,500 tons of native, and perhaps 3,000 or over of foreign are used; probably 500 tons of native growth are exported. Sumach is used as a dye-stuff and for tanning morocco.

Poppy Farming in Queensland.—A successful attempt at poppy farming is reported from Queensland.

A specimen of opium, grown by Mr. Tatnel in the Toowoomba district last season, has been exhibited, consisting of five cakes weighing one pound each, which was part of the produce of a quarter of an acre of poppies. The quality was so superior that the whole exhibit was purchased by a medical gentleman in Toowoomba at £3 10s. per pound. The net proceeds of the crop will amount to £28 or £30.—*The Pharm. Journ. and Transactions.*

Indian Quinine.—The India papers—*The Calcutta Observer and Englishman*—give a very unsatisfactory account of the results obtained in the manufacture of bark alkaloids lately attempted by the English Government.

Tinctura Hyoscyami.—Mr. Edward Davis, F.C.S. (*Pharm. Journ.*), finds that it is necessary that this tincture should be prepared from leaves of second year's growth.

Vital Statistics of Boston.—There were 8,092 births in Boston, Mass., in 1870, 3,492 marriages, and 6,098 deaths. There was an excess of 224 males over females in the births, and an excess of 110 males in the deaths. Of the births, only 25.84 per cent. were children of native-born parents.

The Administration of Chloroform.—According to the London correspondent of the *American Practitioner*, chloroform is universally the anæsthetic used in the London Hospitals. To his inquiries about ether, it was answered that only as a local anæsthetic was it ever used.

Future Parisian Subjects for Dissection.—A French journal says that a society has been formed in Paris, now numbering more than a hundred members, each of whom declare that it is his wish that his body, after death, be used for the promotion of anatomical science.

Roman Life.—The tables of Ulpianus show that the mean term of Roman life was thirty years. This was the average length of life at the commencement of the Christian era.

The Society for the Protection of Infant Life, of Paris, has resumed its operations, and is prepared to undertake, gratuitously, the surveillance of infants sent to be nursed outside the walls of Paris, including a monthly report of the condition of the child as found at the visits of the inspecting physician. To encourage a faithful performance of duty, annual prizes are awarded to nurses who thus distinguish themselves.

A prize of 500 or 1,000 fr. is offered this year for the best thesis on a "Study of the Causes of the Excessive Mortality of Infants, during the First Year of their Existence, and of the Means for its Prevention."—*Gaz. Méd. de Paris.*

The Composition of Some Secret Medicines.—Dr. Wittstein's Handbook of Secret Medicines, recently published, gives the following as the composition of certain famous nostrums:—

Hoff's Extract of Malt has been repeatedly altered in its composition. It is now a good beer, of a pretty constant alcoholic strength of 3 per cent., but varying in amount of extract between 5.3 and 10 per cent. The beer sometimes contains an infusion of a bitter herb (buck-bean, blessed thistle) and of the bark of *Rhamnus frangula*. According to one original recipe, beer was mixed with a small quantity of strong infusion of marshmallow root, coriander, staranise, and grains of paradise, and with some simple syrup, glycerine, oil of lemon or of orange, and of beer coloring (caramel). The consumers can make it for, at most, one-sixth of its price.

Syrup of Horseradish by Grimault.—Hager gives the following: 50 parts each of fresh scurvy grass, buckbean, and watercress, 60 of horseradish, 40 of fresh orange berries, are infused with 3 p. cinnamon in 50 p. white wine, and after a day expressed; 250 p. sugar are dissolved in the filtrate.

New York Pills, by Sampson, of New York.—The 1½ grain pills consist of, powdered cocoa 25, extract of cocoa 30, powdered iron 35 parts.

Brandreth's Pills contain resin of podophyllum inspissated juice of poke-berries, saffron, cloves, oil of peppermint.

Holloway's Pills are composed of aloes, myrrh, and saffron.

Morrison's Pills, 2½ grains each, consist of aloes, cream of tartar, and colocynth; another kind contain the same ingredients besides gamboge.

Radway's Ready Relief, according to Peckholt, is an ethereal tincture of capsicum, with alcohol and camphor.

Radway's Renovating Resolvent is a vinous tincture of ginger and cardamom, sweetened with sugar.

Vital Statistics of the British Isles.—The enumerated population of England and Wales on April 2d, according to the census recently published, was 22,704,108 souls, an increase of 2,637,884 over that of the census preceding it by ten years. The increase from 1851 to 1861 was 2,138,615, being at the rate of 12 per cent. for the ten years; whereas that for 1861–1871 is 13 per cent.

In 1801, when the first census was taken, the population at home amounted to no more than 8,892,536, a number almost equalled by the mere increment of population since 1832. The number of inhabited houses has increased by more than half a million. The average number of persons to a house is 5.3. With regard to the proportion of sexes of the population, there is an excess of 623,302 women and girls, which, subtracting the estimate of soldiers and sailors abroad, is reduced to 474,048.

Summing up the totals for the British Isles, the following is the result: Including 207,198, estimated to be abroad in the army, navy, and merchant service, the population is enumerated as 31,817,108. Of these England has 21,487,688; Wales, 1,216,420; Scotland, 3,358,613; Ireland, 5,412,759; the Isle of Man, 53,876; and the Channel Isles, 90,563.—*British Medical Journal.*

New Publications.

Practical Midwifery and Obstetrics, including Anæsthetics. By John Tanner, M.D., M.A., LL.D. Phila.: J. P. Lippincott & Co. London: J. & H. Churchill. 1871.

Restorative Medicine: An Harveian Annual Oration, delivered at the Royal College of Physicians, London. By Thos. King Chambers, M.D. Phila.: H. C. Lea. 1871.

On some Disorders of the Nervous System in Childhood. By Chas. West, M.D. Phila.: H. C. Lea. 1871.

The Antiseptic System: A Treatise on Carbolic Acid and its Compounds, etc. By Arthur Ernest Sansom, M.D., London. Phila.: J. B. Lippincott & Co. 1871.

On Bone-Setting (so called). By Wharton P. Hood, M.D., M.R.C.S. London and New York: Macmillan & Co. 1871.

Original Communications.

TREATMENT OF SIMPLE FRACTURE OF THIGH WITH PLASTER-OF-PARIS SPLINT.

By JOSEPH D. BRYANT, M.D.,
NEW YORK,
LATE HOUSE SURGEON, BELLEVUE HOSPITAL.

In presenting this subject to the attention of the reader, I shall limit my remarks to the practical facts, more particularly the minutiæ of application, as to it in great part success is due. I shall also mention the most common dangers, and the means of avoiding them, and prove the practical utility of the method by tabulated results. What else may be added will be explanatory, or cautionary to the reader in its use. The plaster-of-Paris splint has, during the past eighteen or twenty months, been continually applied to simple fracture of the thigh in this hospital, with better results, and attended with more comfort to the patient, than with any treatment heretofore adopted. But while it is productive of such very good results, it is essential that care be taken in its application and subsequent attention. To avoid certain dangers (which are very limited in number), the conditions liable to produce them must be considered, and for sake of comparison, I will consider the dangers and advantages together.

Age.—To patients of all ages it is applicable, and particularly useful in those too young to be controlled, since, when once hardened, no efforts of theirs can displace the fragments or interfere with the dressing. For the same reasons it is to be used if the patient suffer from delirium tremens or insanity. In old people it is equally advantageous in another point of view: it enables them to exercise in open air, thus avoiding the influence of constant confinement upon the nature or time of union. The dangers to be avoided in old age, in fact at any age, are of excoriations and sloughing at the prominent points and points of continual pressure. If the patient be cadaverie, simple-minded, or has a diminished nervous sensibility, naturally or from preceding or attending injuries, extra care is essential. If he is emaciated, pad well the prominent points, more particularly the iliac crests, tuber ischii, and pubes. If he is *non compos mentis* he may make no complaint, even say he feels well, splint causes no pain, etc., etc., while in reality he is being deeply excoriated. I recollect one case in particular of this kind, where the patient made no complaint of any moment, even said the splint gave him "no pain," and it was only by a close examination that a deep slough was found over the pubes, so deep as to necessitate the removal of the entire splint and the subsequent application of a Buck's extension. If diminished cutaneous sensibility exists, the same conditions may follow.

The Situation of the fracture is not material, for to all simple fractures of the thigh it is applicable.

In complications of the soft parts or of the joints, if not too extensive, it is used with a success equal to any plan; but if the vessels are implicated it is dangerous, as it prevents acute observation of the limb below the injury. If a danger of gangrene be present, its use should be entirely ignored.

In compound fractures it is equal, if not superior, to any other kind of dressing. But as the last two require an especial consideration, the subsequent remarks will be directed to treatment of simple fracture of the thigh with the plaster-of-Paris splint. If, then, a patient comes under your care, you are first to consider the amount of swelling in, or liable to occur in, the limb. This will depend in great part upon the time, situation, and manner of the receipt of the injury. Time is important, for if seen immediately after the injury, there will be but slight if any swelling. The swelling will be the greatest when the cellular tissue is most abundant; hence the importance of situation. Direct violence is also well known to greatly influence it. These points considered, if then little or no swelling exists or is liable to occur, apply the splint at once; but if the limb is much swollen, or in danger of becoming so, apply Buck's Extension, conjoined with cooling lotions to the part injured. The safer method is in all cases to treat in this manner until the swelling disappears. In hospital practice, as may be done in private if the patient be near at hand, it is always applied as soon as the swelling ceases to advance; then, as it diminishes, the fragments are firmly supported by cutting up the splint in a manner hereafter to be described. I have seen it applied, and repeatedly applied it before any swelling occurred, and no trouble followed, for the probable reason: it is a well-established fact that if most fractures are set at once, the irritation of the soft parts produced by the displaced fragments is prevented, as also it supports the circulation of the limb, thus diminishing the amount of fibro-serous effusion, the same as if a simple roller be applied. I would not recommend this course unless the surgeon be thoroughly acquainted with its use, and at a moment's call. The patient in a proper condition, what are the things necessary?

First, the plaster bandages. These should be made of loose-textured, unbleached, or washed cotton cloth, torn in strips the same as the ordinary roller. After which its meshes should be thoroughly filled with fresh dry plaster rubbed in, then loosely rolled. The attention should be fixed to the quality and freshness of the plaster, as that poor in quality or long exposed to the air makes an imperfect splint; also, if too tightly rolled, the plaster on the outer surface of the roller will set before complete internal saturation occurs. Of these, for the thigh of a medium-sized man, ten or twelve in number, each sixteen feet in length, will be sufficient. An abundance of old blanket, similar to that used in the army, should be procured—or in its stead woollen flannel. The stanchion for counter-extension represents a German idea, and was introduced into this hospital by Prof. H. B. Sands. It is made of iron; the upper, the upright portion, being eighteen or twenty inches in length, round, an inch or so in diameter, and should be covered by bandages or any soft cloth to prevent the iron from injuring the perinæum. The lower extremity is rectangular, the superior portion or surface being at right angles to the upright part, and about four inches in length; the short and only side of the rectangle is one to two inches in length, according to the thickness of the table-top to which it is to be fastened. The free extremity of the remaining side is perforated by a screw, large and eyed, so that it can be firmly screwed against the projecting edge of the table. A washer is used to prevent the screw marring the table. This, as described, can be readily made at any smithy. Another, more elaborate, is made by Tiemann, but is practically no better.* A wooden bar, five or six feet in length, six or eight inches in width, and sufficiently strong to suspend the patient, should be had. It is well to bore into it near the end, so it cannot slip off the stanchion.

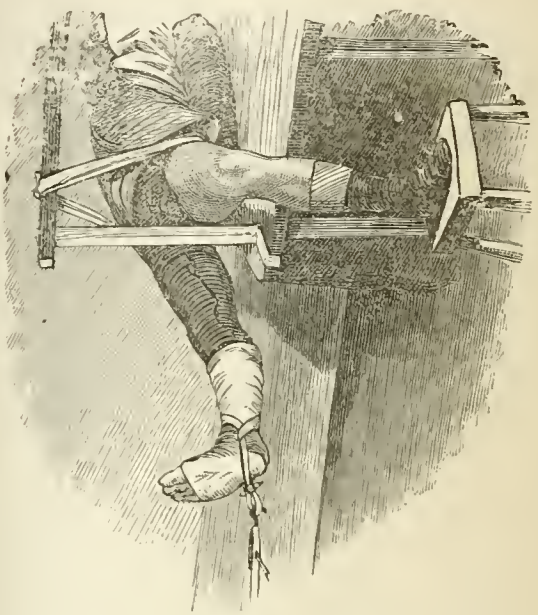
Dry bandages, pins, three or four pillows, a pail of water, warm or cold—warm being the better—to either of which a little salt may be added to facilitate the setting. A quart or so of dry plaster for an emer-

* For outlines of stanchion, see illustration.

gency. Then, with an assistant to give the anæsthetic, if necessary, and another to manage the pulleys, if needed, the outfit is complete. It is quite as well to omit the anæsthetic if the limb can be reduced to its proper length and maintained. The pulleys are not necessary in all cases, as in children and in some adults. The traction of one man, or the combined of two or three, will be found sufficient in many cases to reduce the fracture; but as they seldom pull steadily, and tire easily, the better plan is to use the pulleys on all occasions if they can be had.

Before the splint is to be applied to the thigh, it is essential that something shall be firmly attached to the leg, from which to make extension. For this purpose a Buck's extension is used, and with great success if the traction be not too strong, when there is danger of pulling it off.

The better plan is, in my opinion, to apply to the leg, two or three hours before, an ordinary plaster splint, the same that is used in fractures of the tibia and fibula. From this, extension is to be made by passing a bandage (clove-hitch) around that portion of the splint surrounding the ankle—one upon each side being the better, for then traction is made in a straight line with the body — tying the extremities of the bandages together below the foot, thus affording a point of attachment for the pulley.* The leg splint hardened, the patient is placed upon the table, being nearest to the side of the table corresponding to the broken thigh, and while the old blanket or flannel is being applied to the remainder of the limb and to the pelvis, the patient is anæsthetized. One thickness of blanket or two of flannel is sufficient, which should be tightly drawn and pinned, using care not to put the pins over bony prominences, else pressure will cause pain, with a danger of ulceration. An extra amount of blanket, sometimes termed a "relay," of say three or four thicknesses, is placed in the perinæum, folded so that it shall extend from the median line of the perinæum over three or four inches of the upper and inner surface of the broken thigh, and passing obliquely outwards and upwards, its extremities overlapping over the crest of the ilium, its use being more thoroughly to protect the bony crest from pressure of the splint, but more especially to form a cushion between the perinæum and its greatest counter-extending portion. This applied, the stanchion is fastened to the table, directly in front of the perinæum; the body is then drawn down so that the stanchion shall press lightly against the relay. The fractured limb being supported, and the foot of the other placed upon a chair or stool at the foot of the table, the pelvis is then swung to height sufficient to admit the ready passage of the plaster roller between it and the table. The manner of swinging is to pass around the pelvis, just above the trochanter major, a strong wide bandage, the extremities of which should be tied together, and sufficiently short that when the wooden bar is passed beneath the united extremities, and its lower or partially perforated end placed upon the upright stanchion, and its upper extremity upon something, say a chair—several inches higher—for then the sling will not slip up, the pelvis will be properly swung. The position of the bandage is important, for if it should be carried so low as to press upon the trochanter major, it will strongly tend to rotate the upper fragment inward. The shoulders and back should then be raised to the same height as the pelvis by aid of the pillows aforementioned. The table being securely fastened, the pulleys properly arranged, and the patient completely anæsthetized, extension is begun. This brings the perinæum, which is protected by the relay, firmly against the stanchion, thus furnishing the counter-extending force. Cautiously observe that the stanchion does not press against the urethra or testicles, hence it must be either to the right or left of the median line; and let it be on the side of the fracture, for it will more firmly hold the pelvis and thus prevent the body twisting.

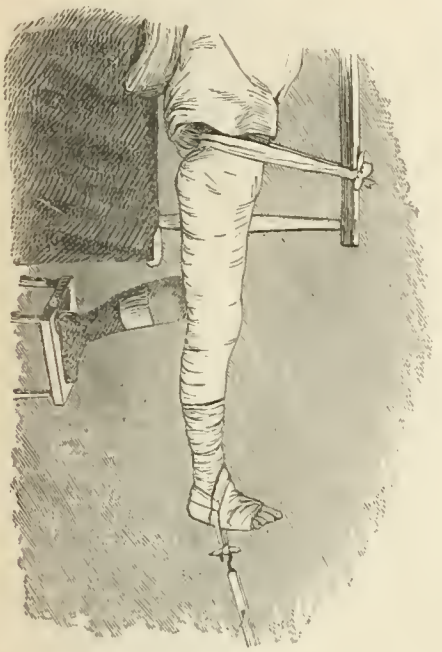


As soon as the requisite amount of extension is made, which is to be ascertained by measurement at the usual points (and to make the measurement accurate it is necessary to cut a small fenestra over either malleolus), observe carefully that the limb is *not* too much everted, as is its tendency. Satisfied of its correctness, have it firmly held in position while you are applying the bandages, which should have been put to soak about four or five minutes before.* It should be commenced by splicing the leg splint, and continuing it upwards. It is better to nearly complete its thickness as you pass up the limb, than to carry a single layer or roller from its lower to its upper extremity, as it is liable to render the setting of the plaster unequal, which diminishes the strength of the splint. In carrying it up the thigh it is as well not to reverse the first layer. When the upper portion of the thigh is reached it is continued around the pelvis in the manner of the ordinary spica, the perineal portion of which must be firmly drawn against the relay of blanket, being careful that no portion of the plaster bandage touches the skin. The portion around the pelvis should be firmly drawn, and not extend above the iliac crests. Four or five thicknesses are quite sufficient, it being made the thickest at the point of fracture. If the fracture is located in any portion of the upper third, it is safer to brace the splint by applying to its upper and antero-lateral portion two or three thicknesses of old blanket, cut in proper shape, and thoroughly saturated with plaster mud. This is to be confined and covered by an additional plaster roller. This completes the application.

* This knot should be made, not at the sole of the foot, as incorrectly represented in first illustration, but below, at the rook, as shown in the second.

* One or two minutes should be given for the superfluous water to drain from them. This will render the application of the splint cleaner, and it will harden quicker.

After which, without letting up the extension, the body is lowered to the table and the suspending bandage cut off. In this situation the patient remains until the plaster splint becomes thoroughly hardened, when it may be covered with a dry roller, or not, as best pleases the surgeon. The projecting portions of the blanket are to be cut off, and the upper and inner portions of the splint protected from the discharges by oil-silk. The patient may then be provided with crutches and ordered up. It usually takes from an hour to an hour and a half to apply the splint, the time, of course, de-



pending upon the skill of the surgeon. When applied you have then to watch it, and your guide will be the sensations of the patient, together with the circulatory appearance and temperature of the foot. If he complains of pain in the limb, numbness or tingling of the toes, with a lowering of the temperature, and a deficient circulation in them, the splint should be cut up at the seat of the pain; when, if the sensations continue, it should be cut its whole length, and comfortably closed with a dry roller. The situations most subject to pain are over the instep, malleoli, knee, and at seat of fracture. Following this, observe that the tissues over the pubes and tuber ischii do not become excoriated. With proper care they ought not; but if they should, then trim out the splint around the excoriated portion, and tuck cotton batting between it and the skin. It is certain, I think, that with the splint once hardened and cut up, its relation to the limb can easily be controlled with a dry bandage, thus obviating all danger. To cut it, the best is the ordinary shoe-knife; it cuts easily until thoroughly dried; then, to facilitate its division, nitric acid can be used in the course of the proposed section; this will render the cutting easy, but ruin the knife. Water, although not acting so quickly, meets the indication. One splint usually suffices. If it breaks, and it is most liable to at or just above the knee or ankle, reinforce it with an additional plaster roller. The splint is usually kept on six weeks, but the same rules govern its length of application as of other apparatus. When it is desired to remove it, if cut; remove the dry bandages, and lift the limb from its grasp; if not, then provide the patient with a tub or pail of warm water and a sponge, or put him in a warm bath, when the splint will become so thoroughly soaked that the bandages can easily be unrolled. Passive motion and moderate bandaging of the limb, together with cold douching, should be employed until its functions are restored. This completes the treatment. Now for the results. The results, as are shown by the attending cases, are better than from any other apparatus. How are we to account for it? Is it due to the extra care given; to the anæsthetic; to the splint itself; or to all combined? It cannot be due entirely to attention, for all possible care is given to other apparatus. That the anæsthetic has an influence is shown by the fact that the best results occur with its use, but without it the results are better, much better with the plaster-of-Paris splint than with any other appliance. How, then, are these results secured? Can it not be explained in this manner: the splint is applied during complete muscular relaxation, with the length of the limb in the great majority of cases entirely restored? Once reduced it is thus held and the splint applied, which from its nature closely fits each inequality of the limb and pelvis, taking a firm hold of the ankle, knee, and dorsum of the foot, particularly the latter, as points from which to maintain the extension; also recollect that the perineal portion of the spica was drawn firmly against the relay; that it closely fits the flaring ilia, and as a firm coaptation to the fractured bone it has no equal. Also the conicity of the thigh assists in preventing shortening, and while the patient is walking the weight of the splint exerts no little influence. And if the splint is applied with the leg slightly abducted, on the patient's arising the limb and splint combined tend strongly to gain the median line of the body, thus maintaining the perineal portion of the spica firmly in its place, and increasing the amount of counter-extension. Last, but not least, all of the joints below the seat of fracture, except the phalangeal joint and metatarso-phalangeal, are artificially anchylosed, so to speak, and the hip itself scarcely movable. If, then, muscular contraction is an element to shortening, it is greatly lessened by not only the confinement of the muscles themselves, but, by rendering the joints of the limb unmovable, we obviate the possibility of any inadvertent movements, while the firm muscular confinement almost entirely abolishes the power of contraction. And here let the fact be strongly impressed, that to secure this uniform quiet the splint must closely coapt the limb. This coaptation, as before explained, is easily obtained by cutting up the splint and removing a piece in its long axis if necessary, then firmly closing it with a dry roller. In the face of these facts why ought there to be any shortening? The reason seems to be that it has not as yet been thoroughly systematized. This is but a re-introduction of an old plan of treatment, dismissed often before on account of the danger attending its use, and the muss attending its application. The present plan secures neatness in applying, and with attention, is free from danger to the patient.

The following statistics include the first cases treated, when it was less perfectly applied, and in one instance with the patient standing. Two or three of the small patients walked upon their splints. For three of the following cases I acknowledge my indebtedness to Drs. Nichols and Vandewater, of Centre Street Hospital. Since the collection of these cases, others with equally good result have been treated in Bellevue Hospital, but not having the particulars for classification they are omitted:—

AVERAGE OF AGE, SHORTENING ON ADMISSION, TIME SPLINT ON.

No. of Cases.	Average of age.	Average of shortening on admission	Average time splint on.	Remarks.
7 Cases.—18 years and under. No anæsthetic used.....	10 1-4 years.	1 1-4 inches.	41 days...	5 with no shortening, 2 with an average of 1-7 inch shortening.
3 Cases.—18 years and under. An anæsthetic used.....	9 "	5-6 "	31 " ..	1 with no shortening, 2 with an average of 1-8 inch shortening; 1 walked on splint.
4 Cases.—Over 18 years. No anæsthetic.....	21 "	1 1-16 "	43 " ..	2 with no shortening, 2 with an average of 1-7 inch shortening.
9 Cases over 18. Anæsthetic used.....	45 1-2 "	1 1-4 "	44 " ..	5 with no shortening, 4 with an average of 2-7 inch shortening.
				13 with no shortening, 10 with an average of 1-5 inch.

The cases in which the anæsthetic was used were, as a rule, the worst—the patients being older, more muscular, with greater shortening; this is particularly observable in the last two classes.

No. 221 East Thirty-first Street.

PERINEAL URETHROTOMY.

FIVE CASES AND SIX OPERATIONS.

By HENRY S. HEWIT, M.D.,

SURGEON TO CHARITY HOSPITAL; LECTURER ON SURGERY, ETC., ETC.

Case First.—In September, 1855, at San Francisco, I was requested by a physician to visit a boy seven years of age. I found the patient suffering from extensive urinary infiltration of the connective tissues of the belly and thighs, with numerous apertures caused by sloughing, through which urine was escaping. Several days previously, while standing on one foot upon the rim of a barrel, he had slipped and fallen astride of the sharp ends of the staves. Blood flowed profusely from the urethra immediately after the accident, but no urine.

A few hours subsequently, evidences of extravasation made their appearance, followed by sloughs and external drainage, as described. Treatment had consisted only in futile efforts to pass instruments, and in palliatives to allay distress. Depression and constitutional disturbance were remarkably slight, considering the surgical condition.

Immediately upon apprehending the nature of the case, I advised external urethrotomy, to which a prompt assent was given; and accordingly, on the day but one following, assisted by Dr. H. L. D. Sheldon (now of the navy, I believe) and Dr. Charles Bertody, of San Francisco, I introduced, under ether, a staff of suitable size as far as it would go, cut down upon it, identifying the anterior sound portion of the urethra; continued the section through a mass of slough till I succeeded in making out the distal extremity of the vesical portion, and passed the staff through it into the bladder.

A flexible catheter was then substituted, and secured to the penis by narrow straps of isinglass plaster. A catheter, changed every three days, was retained about three weeks. Before this period had elapsed it was obvious, from the percolation of urine between the instrument and the sides of the canal, that integrity was restored, and that the artificial tube was useless.

In six weeks all the external openings had closed, and in two months health and strength were re-established. It is not in my power to furnish any particulars of the subsequent history of the case.

Case Second.—In September, 1867, after a consultation at Paterson, N. J., with Dr. George W. Terriberry, that gentleman requested me to visit a patient of his who had an impassable stricture.

I found Michael Fitzsimmons, a laborer, married, aged thirty-eight years, in the last extremity of chronic retention from a traumatic stricture, passing his urine continuously by drops, and with the utmost pain and difficulty. The patient was worn out with suffering and irritation. Complete stoppage seemed immediately impending. In the brief interval allowed for my visit, no instrument could be made to pass, and the case was one which might properly be considered an impermeable stricture. His history developed an accidental injury by falling astride of the narrow edge of a flooring-timber. This was followed by an outflow of blood from the meatus, and swelling of the perineum, but was not accompanied or followed by extravasation of urine.

A flexible catheter was passed soon after the accident, and retained for a couple of days, when it was removed by the patient, and its re-introduction never afterwards accomplished.

The urine resumed its natural course in a small and diminishing stream, and his condition was as described two years from the injury, at the period when I first saw him.

Treatment by some unknown person in this city had produced a long false passage, into which sounds were regularly passed, until the patient became too feeble to attend longer, or even to leave his house.

With Dr. Terriberry's sanction, I proposed perineal urethrotomy, and at his request proceeded, on the day but one succeeding, to perform the operation, assisted by him, Drs. Van Riper and Von Geisler, of Paterson, and my friend Dr. L. P. G. Gouley, now physician in charge of the Small-pox Hospital, Blackwell's Island.

Ether was given, and a staff passed, avoiding the false passage, to a point six and a half inches from the meatus, and pressed firmly against the anterior portion of the strictured canal.

The usual incisions were made, the point of the staff recognized and slowly pressed on, as careful progress was made by the knife through dense cicatricial tissue nearly to the edge of the prostate. The staff was then passed into the bladder, and a No. 17 English sound introduced immediately afterward.

The operation was followed by considerable shock. In two days I visited the patient, and found I could not pass the sound. Several resisting bands anteriorly to actual commencement of the tightly-strictured portion were divided with the point of a bistoury on the finger as a guide, and the sound, same No., introduced. No further difficulty occurred. Surgical fever and constitutional irritation rapidly subsided. Instruments were regularly passed. The recovery was complete in six weeks. The patient was taught to use a No. 15 English scale for himself.

Several months afterwards he presented himself at my office in a sound and healthy condition. He died two years subsequently from an acute disease.

Case Third.—Louis Meisan, French, aged 45, occupation *chef de cuisine*, admitted to Ward 3, Charity Hospital, January 25, 1870.

Stricture and urinous abscess in perineum. In 1845, while serving as a soldier in the French army in Algeria, he contracted gonorrhœa, for which he was treated with strong injections of a solution of nitrate of silver, frequently repeated, and continued for fifteen days. Since that time he has never been free from gleet. In 1860 discovered the first evidences of stricture. The difficulty increased to such a degree that he was compelled to seek surgical assistance. The stricture was treated in Paris by divulsion, with Holt's instrument employed by a French surgeon.

The patient remained in a comfortable condition till 1866, when recontraction commenced, more or less antagonized by the occasional passage of sounds, till August, 1869, when his condition became insupportable, and hardness, thickening, and tenderness developed themselves in the perineum. He now entered St. Vincent's Hospital, where he remained till the beginning of January. Becoming discontented (very unreasonably, as I should judge), he left, and remained among his friends for a few days, and finally brought up in Charity Hospital, in the division of which I was in charge. Examination brought to our knowledge an abscess in the perineum, discharging pus and urine, and a long and very painful and rigid stricture, commencing six inches from the meatus. A good deal of mental depression and irritability were manifest, and some irregular fever of an intermittent type. The constitution and general appearance indicated great powers of life and undiminished vitality. A flexible bulbous bougie, about No. 5, passed without difficulty, but was strongly held in the act of withdrawing. Smaller conical flexible bougies were entangled and arrested. Solid sounds gave extreme pain. Abscess in the perineum was treated by poultieing, and the general febrile disturbance with quinine and valerianate of ammonia; extra articles of nutrition and wine were ordered.

Feb. 7th.—After consultation, with the sanction of my colleagues I proceeded to perform external urethrotomy. Ether was given. The bulbous soft bougie, which passed the most readily, was introduced to assist in the recognition of the urethra. A free incision was made, and the urethra identified and divided on a guide subsequently passed, to the extent of two and a half inches.

No. 25 solid sound, French scale, was passed easily immediately afterward. The operation was followed by a severe attack of surgical fever, treated by quinine, wine, and occasional small doses of morphine. During this attack a sharp but limited pneumonia occurred. On the 4th of March the general convalescence had fully commenced. Sounds had in the mean time been passed as often as once in three days. The highest reached was 28 of the French scale. This was found too large, producing slight extravasation of blood into the corpus cavernosum of the right side, and 26 was settled upon as the highest number adapted to the calibre of the urethra. At the end of March he was discharged perfectly well, and able to pass a No. 26, French scale, upon himself without difficulty. I have since received a letter acknowledging his obligations to the Institution, and confirming his complete recovery.

Case Fourth.—Two operations.—Bernard Slattery, a native of Ireland, 54 years of age, butcher by trade, was admitted to Charity Hospital, Feb. 17, 1870. Obstinate and irritable stricture of long standing; urine passing guttatim, or in an exceedingly small stream at frequent intervals, preceded by acute pain. Haggard appearance, anxiety, debility, and anorexia. Every effort at exploration, whether by hard or soft instruments, elicited complaints of extreme pain, accompanied with bleeding from the meatus, and constitutional irritation. His history revealed that at the age of 20 he contracted a clap, for which no local treatment was adopted. Four months subsequently, and while he had a discharge, probably simply gleet, he fell upon the perineum. This accident produced pain and swelling in the perineum, but no outflow of blood, and from this date commences the gradual progress of the formation of an irritable semi-traumatic stricture, with its concomitants of kidney derangement, chronic cystitis, and constitutional irritation. From the age of 30 to present time the habits of this patient have been more or less intemperate as to liquor, occasionally drinking to very great excess.

At the age of 24, about three years and a half after the accident, complete retention of urine occurred, for which the bladder was punctured above the pubes (as confirmed by the cicatrix), after other measures of relief had been employed without avail. The urine resumed its natural channel again in four days. A few years subsequently he was treated in Edinburgh by gradual progressive dilatation, and obtained a "fair round stream," which he maintained for a considerable period, by means of the regular passage of a bougie, size not stated. In 1863 he arrived as an emigrant, and fell into the company of a genteel stranger, who treated him in the most friendly manner, got him drunk, and sold him as a substitute. He served till 1865 in the army, and lost the third finger of his right hand in battle. While at Carlisle barracks he experienced another attack of complete retention, for which he was treated by an army surgeon. No instrument would pass, and a moderately large flexible bougie was tied in contact with the obstacles for some hours.

As the result of this treatment the urine spontaneously resumed its difficult and painful outflow. Subsequently to the period last specified he grew progressively worse, and was admitted in the condition above described.

On consultation, it was deemed unadvisable to waste time by efforts at dilatation. Accordingly, on the 26th of February the operation was performed. A grooved guide was passed, after ether had been given, to the anterior border of the stricture, five and a half inches from the meatus. The incision pursued the usual course and direction. The knife made its way through a thick layer of dense gristly tissue, and finally encountered the extremity of the staff. This was pushed forward, and a passage made by slow degrees to what was supposed to be the track of the urethra, nearly to the edge of the prostate, when a director was passed into the bladder, and the remaining section completed upon it. The prostate was discovered to be hardened, enlarged, and irregular. It was with great difficulty that a French 17 solid sound could be made to pass through the gland and enter the viscus beyond.

Shock, succeeded by surgical fever and extreme prostration, followed the operation. The periodical introduction of sounds called forth expressions of extreme suffering, and always induced aggravation of the general unfavorable symptoms. The highest number reached was a French 19, under ether, and its passage was so difficult through the prostate that I for the future confined myself to lower numbers.

It became necessary to give ether every time instruments were used, and the patient progressively de-

clined in strength. Urine passed by both perinæum and urethra; albumen made its appearance with casts, and considerable œdema of face and extremities supervened.

In April the wound in the perineum closed, and a moderately good stream flowed by the urethra. There remained great irritability of bladder, anorexia, and frequent vomiting. Under these circumstances instruments were seldom employed. During the excessively hot weather that occurred in June the skin began to act freely, and marked improvement took place. Instrumentation was resumed, and it was discovered that much recontraction had taken place. The urethra at this time was in such an irritable condition, and the debility of the patient, notwithstanding the improvement just mentioned, so great, that much interference was considered unadvisable. My own opinion was that he would speedily die.

During the summer ether was occasionally given, and sounds passed, gradually diminishing in size.

In August he was able to leave the hospital. He was then passing a moderately good stream, and believed himself able to resume some employment. On the 9th of October he again sought admission.

The recontraction was now almost complete. Cystitis and vesical tenesmus were present, and induration, with swelling, existed in the scrotum and perineum. The swelling was so considerable at times as to lead to the belief that extravasation was taking place.

The urethra was so irritable that it could not be explored without giving ether, and under the anæsthetic the most careful and patient efforts on the part of my colleagues and myself failed to pass an instrument of any size. Under soothing and supporting treatment some improvement followed, and on the 12th of November I was fortunate enough to introduce a No. 2 (English) steel sound, which was followed immediately by a No. 3.

A consultation called soon after decided that a repetition of the urethral section was expedient, and in fact demanded by the exigencies of the case. An examination of the urine made at this stage revealed no tube casts, and very little albumen.

On the 18th of November the operation was repeated. A subcutaneous injection of one-half grain of morphine in solution having been administered, the patient was etherized in bed, and brought insensible to the operating table. The guide (of the size of a No. 3 English) figured in the subjoined cut was passed, and the section performed upon it. The dense tissues recognized in the former operation were encountered. The section was made much longer than usual both anteriorly and posteriorly, and several nodules of induration in the submucous membrane of the urethra were discovered, and divided subcutaneously. Posteriorly the section was carried to the prostate and its capsule divided. The finger was passed into and through the gland, and a large number of concretions of uric acid scraped out with the nail.

Nos. 28, 29, and 30 of the French scale were passed with ease, and the patient sent back to bed with orders to receive hypodermically a second dose of one-half grain of morphine. He awoke soon afterwards in good condition. Postponed shock, however, occurred in the course of the following night, calling for the exercise of the most vigilant and active treatment. Having happily escaped this danger, he made from this time forward fair progress.

Sounds were passed every three or four days, at first under ether, afterwards without. Urine ceased flowing by the wound on the 1st of January, 1871. In March following he suffered a relapse of great constitutional irritability, associated with swelled testicle, and pain and induration in the perineum. This was attributed to excessive instrumentation, which was suspended, and the calibre of the sounds for future use diminished from 28 and 30 French scale to 23 to 25. In June, 1871, he left the hospital, and reported himself in comfortable condition to the writer. Urine could be retained three and four hours. The stream was fair and round, and the general condition good for a man who had suffered so much.

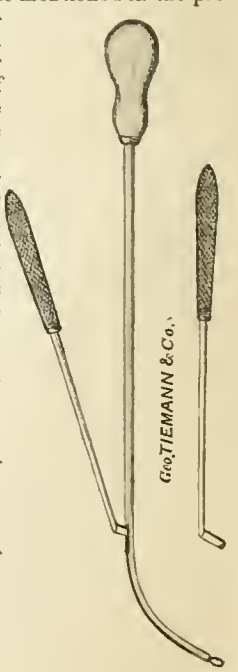
Case Fifth.—James McMahon, tailor, aged 29 years. Admitted to Charity Hospital, Dec. 17, 1870.

This patient, on admission, presented the symptoms of chronic gleet; and an examination by Dr. Mason, in whose charge he was, revealed prostatitis with suppuration. After palliating and soothing measures had been employed, Dr. Mason punctured the tumor in the perineum without obtaining pus. On the 27th he coursed the incision more deeply, and evacuated a gill of matter, with great relief to the patient.

The anterior history revealed three attacks of gonorrhœa, the last contracted six months previously. The constitutional condition unmistakably evidenced syphilitic poisoning, although the fact of primary infection was denied. The abscess continued to discharge for some time, and finally formed a chronic fistula.

Strictures were recognized at the meatus and in the membranous urethra. Constitutional irritability was excessive, and efforts at instrumentation developed orchitis and urethral fever, assuming an intermittent type.

I found the patient as above described on assuming charge of the division, and with Dr. Mason's approval called consultation with the view of making perineal section. The consultation, consisting of Drs. Mason, Eager, Keyes, and Lee, advised the operation; and accordingly on the 20th of February, having adopted the same precautions as mentioned in the previous case, proceeded to operate, using the staff and urethral knife, which I have adopted for the easy and rapid section of urethra when a guide can be used. I was pleased with the action of the instrument.



The surgeons present also expressed their satisfaction at the rapidity and certainty with which the urethra was slit to required distance. This case progressed well. Full-sized sounds were regularly passed after the first week. The fistula closed on the 14th of May.

The accompanying cut represents the staff and urethral gorget to which I have alluded. It is, of course, adapted only to cases which will admit a staff of the size of a two or three English sound. The button on the end of the rectangular blade fits into the groove of the staff, and enables the operator to make the subsequent division of the urethra—*tuto cito jaciende*.

On May 17th the patient was in good condition, passing a good stream; health, strength, and appetite restored. Ordered discharged cured.

OBSERVATIONS ON BLOOD-LETTING.

By C. C. P. CLARK, M.D.,

OSWEGO, NEW YORK.

The many signs that appear, in medical journals and elsewhere, of renewed attention on the part of the profession to the subject of venesection, cannot but be regarded as of good omen. We know that the remedy had fallen into nearly absolute disuse; but it is incredible that means so often resorted to as this was half a century ago, by medical men of sense and experience, should be absolutely or nearly useless. That it was then carried to excess, just as, at different times, mercury, opium, purgatives, etc., have been, and as, perhaps, stimulants are now, will hardly be denied; but that, in common with these others, it had some element of utility in its influence over morbid conditions, can hardly be doubted.

It is suggested, in explanation of the change in practice with regard to blood-letting, that the *type* of diseases has changed. No doubt diseases change, and it may be that external morbific agencies in general have undergone some large modification. It may be, even, that the human system has been revolutionized with respect to its tolerance of this agent. But while these last changes are little probable in themselves and are certainly not proved by any clear evidence from any quarter, it is well known that the style or fashion of practice, the mere "follow your leader," is greatly mutable even in this comparatively scientific age. He who has seen, for example, the decline of purgation and the rise of stimulation that have taken place in the practice of the average medical practitioner within the last twenty-five years, will hardly need to call upon a *deus ex machina* in order to account for any change in the methods of our art.

There is a false notion in the popular, and to some extent in the professional mind, with regard to the normal injurious effects of the abstraction of blood. It is matter of daily observation, that the loss of a pint or more as the result of accident, by a healthy person, very seldom does harm. On the contrary, it is very often followed by improved feelings of health. I have no doubt that there is a large grain of truth in the old English adage, that

> "A bleeding in the spring,
> Is physic for a king."

It has the effect of a few days or weeks of low diet, and goes in substitution of that spring-fast which is as old as the wisdom of the Egyptians, and of which utility, to all but the invalid, the nursing, the nursed, and the exceptionally laborious, is hardly doubtful.

It has frequently happened to me to be applied to by patients, most often emigrants from England, whose common practitioners retain the benefits with the disadvantages of a pretty stiff conservatism, who, with no sign that I could see of sickness or plethora, or even with anæmic look, desired to be bled. I used to hesitate a little about mechanically following their wishes. But since I found that a bleeding never did them harm, but, if they were to be believed, almost always renewed their vigor, I discard scruples and open a vein for all that apply.

The case is different if the subject of treatment be seriously ill. All powerful remedies must now be touched with the greatest caution. "A little thing," says the poet, "may harm a wounded man." A sick man's situation is not less susceptible of damage. I verily believe that if the carcasses of those who have been sent to an untimely grave by unduly vigorous medication should reappear above the soil, they would show thicker upon the hills of New England and her western neighbor, than would the Union and the Confederate dead together on the bloodiest regions of the South.

Dangerous though it be with the dangerously sick, there are familiar facts which go to show, that even in the prostration that accompanies long-continued fevers, the loss of blood may be not only innocent but salutary. It is according to my observation, for instance, that in that condition loss of blood from the bowels or from the nose is seldom of bad augury, and often seems to be salutary.

It is in the beginning of inflammatory and congestive diseases that the lancet finds its chief place. It is when, in pneumonia, the heart begins to stagger with the accumulating burden whose avenues of exit through the lungs are partly closed; it is in inflammations and congestions of other organs, when the capillaries of the affected part have not yet lost their power of rallying; it is in violent fevers, when the vigor of glandular life is not yet too far impaired by the generating or the generated poisons to find relief in an abatement of its aliment, and, thereby, of its necessary functional activity.

My first lesson in the power and usefulness of the lancet was given me twenty-four years ago by Dr. Zaccheus Bass, of Middlebury, Vt., then a practitioner of more than a quarter of a century of experience, and still, to the great benefit of his patients, of vigorous mind and body. It was a case of double pneumonia in a woman of previous good health and of great vigor of constitution, then, if I remember rightly, near her grand climacteric. I had already bled her twice. It was the third or fourth day of the disease, and the constant aggravation of the symptoms, especially of the dyspnœa, gave me great alarm. The gravity of the case necessitated many minutes of deep thought on the part of my consulting friend. At length he said: "This woman will die within thirty-six hours if she is not bled; she may die in six hours if she is bled; bleeding is the only thing that has any chance of saving her." Three times within the ensuing twenty-four hours I opened a vein in her arm, taking each time six or eight ounces of blood, each time with evident advantage. She finally recovered. Since that time it has been a general rule with me to bleed in pneumonia, in cases seen early. Seldom do I think I find it to be contraindicated, and I do not remember having in any case regretted its use. Whatever theory or authority may teach, I have no more doubt that it will, in many cases, abort a pneumonia, especially when followed by a full opiate, than I have that quinine will abort an intermittent.

The following case made a deep impression on my mind, especially because of the large quantity of blood abstracted. A healthy lad of Irish parentage, aged five years, was found at breakfast time by his parents in a convulsive and comatose state. The spasms were general and mostly tonic. In the course of the morning he was visited by several physicians, who prescribed for him variously. I saw him between two and three o'clock P.M. on the same day. The coma and convulsions had continued unaltered. He had a slow and very weak pulse, a cool surface, and contracted pupils. It was plainly a case of acute cerebral disease. I opened a vein in his arm, and let the blood flow till the pulse "came up" in force, volume, and frequency. It did not satisfy me in these particulars till I had taken considerably more than a pint of blood. By that time the convulsion had materially abated. Half an hour afterward his appearance was altogether that of gentle

sleep, though he could not be aroused from it. The next morning he spontaneously awoke quite well. I have treated in the same way similar cases at the same stage in older patients when the condition was that of almost absolute collapse, and always with the same happy result. They invariably die under any other treatment.

It is only of late years that I have practiced venesection in continued fevers. In typhoid or malarial epidemics I do not resort to it. It is a not unreasonable theory that in these diseases the vital and nutrient properties of the blood are so impaired by some ferment or other poison, that the whole existing supply of that fluid is needed to feed the organic functions.

But there is a fever of not infrequent sporadic occurrence in this northern country, that in my early experience was very fatal. It is the inflammatory fever or synochus of Cullen. It generally attacks young and robust adults, of the male sex most often. During its formative stage it is generally accompanied by moderate irregular chills, which for some days may be almost constant. Intense headache, backache, a distressing sense of fatigue, sleeplessness, dull cornea, congested conjunctivæ, pyrexia, a full and somewhat frequent pulse, and a furred tongue attend. At a later stage typhoid symptoms ensue. Opium, quinine, purgatives, veratrum viride, and all other remedies that I have tried, give no relief. A full bleeding, if practised within the first three or four days, cuts short the disease. Under any other treatment that I have tried or seen tried it is the most fatal febrile disease that I am acquainted with.

On the whole I am certain of having saved more lives by the lancet than by any other means except opium, and I am more certain of having saved some by that instrument than even by opium itself. This conviction, the late almost entire disuse of the remedy, and its recent resuscitation, are my excuse for offering these scattered observations.

August 12, 1871.

Progress of Medical Science.

Case of Lithotomy.—George E. Post, M.D., Professor of Surgery in the Syrian Protestant College, at Beirut, writes—Mohammed Ali, of Beirut, ætat 12 years, has had symptoms of vesical irritation for two years. He first came under my observation Oct. 25, 1870. On sounding, I found the bladder apparently filled by a single smooth stone. Oct. 31st I put the patient under the influence of chloroform, and made a curved incision three-quarters of an inch in front of the anus, and, on reaching the membranous portion of the urethra, made a bilateral incision of the prostate, by means of the double prostatome of Dr. A. C. Post, of New York, using the blades of the second size, making an opening an inch and a quarter in extent. I then introduced the lithotome caché, and incised each lateral lobe of the prostate obliquely, as far as to the investing capsule. By this means I gained an opening through which a spherical body of an inch in diameter might have passed with little stretching. On passing the forceps into the bladder, I found the stone retained by the contraction of the muscular coat of the viscus near the fundus. I passed a large scoop above it, and brought it down to the floor of the bladder, and then seized it by its shortest diameter, and commenced a slow traction with a rocking motion, and, after the exercise of a good deal of muscular force, delivered what one of the students facetiously called "a paving stone." The stone was oblong in shape with rounded angles, and flattened. The three diameters were respectively, length, $2\frac{5}{16}$ inches; breadth, $1\frac{14}{16}$ inches; thickness, $1\frac{7}{16}$ inches. A section taken across any of these diameters would give the figure of a parallelogram with rounded angles.

The weight of the stone when dried was 102 grammes, equal to nearly 1,600 grains, or three ounces and a third. The perineal and prostatic openings rapidly contracted, so that within a quarter of an hour from the time of the operation, the opening in the prostate seemed no larger than at the time of the completion of the sections. An elastic catheter was introduced, and the patient was put to bed. Not an untoward symptom followed. He had hardly the ordinary reactive fever which follows lithotomy. On the fifteenth day all the urine flowed by the urethra, and on the sixteenth day he was discharged from the hospital, with an unhealed cavity that would have held a pea. A few days later the cavity was entirely healed, and the physical state of the boy was marvellously improved.

This, for the age of the boy, will rank high among the cases of successful lithotomy. It is my tenth case of perineal extraction, and I am happy to say that they have all been successful. I have in all these cases performed the bilateral operation, with the double prostatome of Dr. A. C. Post.

The operation has been also successfully performed here in one case by an English surgeon, with the same instrument.

Abscess of the Spleen.—Dr. Gluge, of Brussels, reports a case of this rare affection, which terminated in recovery. It had been severally diagnosticated to be rheumatic; a lesion of the eighth intercostal nerve; Rayer, who examined the patient, thought that it was an inflammation of the surface of the spleen, and it was suggested that it might be an encysted abscess between the spleen and diaphragm. An exploratory puncture demonstrated the presence of pus, and an incision through the anterior portion of the ninth costal interspace gave exit to a quantity of this fluid, a portion of which, being subjected to microscopic examination, was found to contain elements of the spleen. Recovery followed easily upon the application of suitable measures of treatment.

Primary abscesses of the spleen are rare, but cases may be found as reported by—Heusinger, *Entzuengdung und Vergroesserung der Milz.* Eisenach, 1820, et Nachtræge, 1823. Heinrich, *Krankheiten der Milz.* Leipzig, 1847. Cruveilhier, *Atlas*, liv. II. Rokitanski, *Pathol. Anat.*, III., p. 300. Gluge, *Atlas*, liv. V.—*Gaz. Méd. de Paris.*

Chloral Hydrate in Tetanus of the Newly-born.—Dr. Widerhoffer showed lately to his class an infant three months old, who was attacked with the tetanus of the newly-born on the seventh day after birth, and had been treated with chloral-hydrate in doses of one to two grains on the occurrence of each convulsion. It was in danger during a fortnight. During the intervals it was nursed by its mother, and at the time of its exhibition it was a handsome child. This was the sixteenth case of this disease cured by the chloral-hydrate which Dr. Widerhoffer had observed. All other methods had been invariably unsuccessful, not only in his own experience, but also that of Vogel and all other German authorities. The doctor administers two to four grains of the remedy by enema to infants who cannot take it *per orem.*—*Gaz. Méd. de Paris.*

Dextral Pre-eminence.—Dr. William Ogle, of St. George's Hospital, London, in a paper read before the Royal Medical and Chirurgical Society, combats the commonly accepted doctrine that dextral pre-eminence is based on conventional agreement enforced by educational influence, and has no foundation in physical conformation. The preferential use of the right side is not confined to the arm, he says, but extends also to the leg, which is not subject to education like the arm, the tendency, in both cases, manifesting itself before education begins, and persists, frequently in spite of efforts to overcome it. It is transmitted in families; is more common by far in males than females, and is not limited to the human race, but has been proven to exist in some classes of animals. In left-handed persons, the faculty of speech has been demonstrated to reside in the right, instead of the left cerebral hemisphere, as shown in four cases of aphasia following left hemiplegia in persons of this class; a comparison of the brains of these persons with the brains of those who had dextral pre-eminence showing also that in the former the right hemisphere is the most complex in its structure, and, in the latter class, the complexity of arrangement is greatest in the left lobe.

Finally, the question is considered—What is the cause of the greater development, as a rule, of the left hemisphere? It is argued that it depends probably on the left hemisphere receiving a freer supply of blood than the right one. The results of the author's observations as to the relative sizes of the arteries on the two sides of the neck are given; from which it appears that the left arteries are, as a rule, slightly larger than the right ones. It is also shown that, independently of the size of the vessels, the stream of blood is less hindered on the left side than on the right. Lastly, it is shown that this explanation is consistent with, and corroborated by, the peculiarities of the cerebral blood supply in those other animals which, like man, manifest a tendency to use one side preferentially to the other—such as monkeys and parrots.—*Medical Times and Gazette.*

Couch for Bandaging.—The correspondent of the *British Medical Journal* describes a couch used in Vienna to facilitate the application of the gypsum or starched bandage, which is an improvement upon anything we have seen in the New York Hospitals. It consists simply of a board as wide as, and shorter than, an ordinary sofa, on which slides a shallow box holding a mattress; this box and mattress are not quite as long as a man's body, and lie towards one end of the board; at the other end of the board is an upright rod of iron, with a flat horizontal ledge on one side, and covered with sheet India-rubber. When the patient is to have his hip put up in a gypsum bandage, his back and shoulders are laid on the mattress (the whole concern being previously put on the operating table), and his sacrum on the iron ledge, the upright part of the iron lying against the perinæum. The assistants have simply to hold the lower limbs in a proper position, while the pelvis is quite free, over and under, for bandaging.

Spasmodic Muscular Contraction—Arterial Compression.—M. Broca had under his care, a few months ago, in the Hôpital de la Pitié, a man who had broken both bones of his leg an hour before his admission to hospital. The muscular contraction was so violent that it was impossible to reduce the fracture. M. Broca thereon employed a method which he had found successful in cases of painful cramps of the lower limbs, viz., compression of the femoral artery. Almost immediately the muscles became relaxed, and reduction was effected with ease. Subsequently, in re-applying the splints, the contraction returned, and was again overcome by the same means. The *Journal de Médecine et de Chirurgie Pratiques* for March, in relating the case, says that the simple and easy means employed by M. Broca ought always to have a trial before giving chloroform, which is often done in such a case.

Keratectomy.—In traumatic and idiopathic cases of suppurative ophthalmitis, the operation of keratectomy is proposed by Mr. W. Spencer Watson, of London, and in one case has been successfully performed by him. Its object is to establish a fistulous opening in the cornea, through which the morbid products of the inflammation may escape freely, until such a time has elapsed that the tissues may have recovered. It is suggested that in some cases of suppurative ophthalmitis, keratectomy might prevent the anticipated mischief.—*Lancet.*

Ovariotomy.—At the meeting of the Royal Med. and Chir. Soc., on the 13th of June, T. Spencer Wells presented a fourth series of one hundred cases of ovariotomy, which, following the order of former papers, he had arranged as follows:—

Series 1. Cases in which ovariotomy was completed—100 cases: 78 recoveries, 22 deaths.

Series 2. Cases in which ovariotomy was commenced but not completed—6 cases: 2 relieved or cured, 4 died.

Series 3. Cases where an exploratory incision was made—7 cases: 5 recovered from incision, 2 died.

He showed that the mortality after ovariotomy was steadily diminishing. Of his first 100 cases, 34 died; of his second 100 cases, 28 died; of his third 100 cases, 23 died; and of his fourth 100, 22 died. Of this fourth series, 44 had been in hospital, and 56 in private practice. In private practice the mortality was only 14 per cent., while in hospital it was 31 per cent. The author believed that the mortality in private practice might be taken as a guide to what might become the general average mortality after ovariotomy, and he was convinced that it might be reduced to about 10 per cent. without excluding those extreme cases when the operation was performed as a last hope.—*Br. Med. Jour.*

The Madura Fungus-Foot of India.—Mr. Jabez Hogg contributes to the *Medical Times and Gazette* of July 22d an article on the above disease, in which he attempts to disprove the parasitic origin of the affection, as is claimed by Dr. Vandyke Carter, of Bombay, who first brought the disease to the notice of the general profession in 1860. Having had an opportunity to examine three specimens, he has failed to find anything of a fungoid character in their composition. He gives, in addition to his own, the opinion of another observer who has examined several specimens, and who says, that although the soft parts are infiltrated with lumps of "truffle-like" bodies, he is not prepared to say that the fungus causes the disease; it rather to him seems probable that the primary disease was caries of the bones, and that the fungus became developed subsequently and accidentally.

Dr. Hogg says that "the foot-disease of India appears to commence in an error of nutrition; phlegmonous inflammation and diffuse suppuration follow, and spread from one tissue to the other. Specific blood-poisoning, hypertrophy, and increased cell-development soon pass into complete disintegration of tissue-vessels, nerves, etc. . . . The slow disintegration of the various structures in the disease is no doubt greatly exaggerated by the ordinary effects of a tropical climate."

Digitalis Infusion.—According to Richelot (*L'Union Méd.*), the infusion of digitalis is more effective in dropsy than the decoction. Half-drachm to six ounces of water should be used in twenty-four hours.

Anthrax and Furuncle of the Face have been treated of by M. J. L. Reverdin in the *Archives Générales de Médecine*, his conclusions being as follows:—

1. Anthrax and furuncle of the face possess unusual gravity.

2. This gravity is due to the facility of their complication with phlebitis.

3. Phlebitis easily causes death, either by extending to the sinuses of the dura mater or becoming the source of purulent infection.

4. Anthrax of the lips is more frequently complicated with phlebitis than the other varieties, which can be explained by the peculiarities of their structure.

5. Anthrax of the lips has nothing in common with the disease know as malignant pustule.

6. Invasion of the orbit by phlebitis, as shown by exophthalmos, announces the certainty, almost, of the extension of the disease to the cerebral sinuses.

7. An incision made early and as freely as possible seems to be the best means of preventing, and sometimes arresting the phlebitic complication.

Tubercular Ulceration of the Mouth and Tongue.—M. U. Trélat, Surgeon to *la Pitié*, describes these ulcerations, so commonly seen in the mouths of phthisical patients, as tubercular in their origin and not dependent upon cachexia, as has been commonly supposed. He states that the persons affected are always tuberculous, and in two cases which he has seen, the ulcers preceded any signs of disease of the lung by seven and eight months respectively. It is the rule, however, for the inverse order to be the case. They may be found upon any part of the cavity of the mouth, cheeks, or pharynx, but the tongue is the most frequent seat. They are essentially chronic, and are progressive in their course, though rather indolent in the initial stage. They never retrogress spontaneously, and he has never known a person to recover from them. They are quite superficial, never having cavities on the one hand, nor the vegetations common to cancroid and carcinoma on the other. Their base is pinkish or yellowish gray, and they are covered with a very adherent mucus; are of irregular form, and, especially on the tongue, have an indurated base. The author considers the mode of development in the initial stage as quite pathognomonic of its character. There is found on the mucous membrane an elevated surface, round, and 1 to 4 millimetres broad, showing on its surface, which is still covered with epithelium, one or several follicular orifices. This spot is of a pale yellow color resembling that of phlegmonous pus. At the end of a few days the epithelium becomes destroyed, and an ulcerated surface soon appears. Several may sometimes be seen in different stages of development.—*Gazette Médicale de Paris.*

Differential Diagnosis of Mild Rachitis from Chronic Hydrocephalus.—Prof. Wilderhoffer, Clinical Professor at the Hospital for Infants in Vienna, says, regarding this subject, that in rachitis the form of the head is more or less angular, but there is a characteristic disproportion between the face and the head. The anterior fontanelle may be large, but the sagittal suture is ordinarily closed at the eighth or ninth month; the orbits are normal; the eye-ball is not prominent. Later there are several alterations in other parts of the skeleton, such as the flattening of the chest transversely, enlargement of the epiphyses of the radius and ulna, etc.

On the other hand, in chronic hydrocephalus the cranium tends to assume a globular form; the sagittal suture and the posterior fontanelle are both open; the head is large, out of proportion to the face; the temporal bones are spread outwards at their superior ends, instead of maintaining their vertical position. In consequence of intracranial pressure the superior wall of the orbit is depressed, pushing the eye outwards and giving to the expression the appearance of fright.

In rachitis there is a tendency to partial convulsions, and specially to spasm of the glottis; in chronic hydrocephalus there is a tendency to general convulsions. Lastly, the first disease is most frequently accompanied with diarrhœa; the second, with constipation.—*Gazette Médicale de Paris.*

Pneumothorax Complicating Labor.—Dr. E. D. Bowers writes:—Mrs. H., a primipara, had been in labor all day. During a violent parturient effort, while the head was pressing the perinæum, the patient faintly exclaimed, "I cannot see," "Am choked for breath," her voice reduced to a whisper. Her face and neck presented a distended and puffy appearance, a condition which in a short time extended over the trunk as far down as the lower border of the ribs, presenting to the touch that peculiar crepitation denotive of pneumothorax.

Uterine effort being suspended, labor was terminated by use of forceps. With the exception of considerable pain of a pleuritic character, her recovery was as rapid and complete as is usual in an uncomplicated labor. Three years prior, patient had suffered from an attack of pneumonia, with a severe pleuritic complication.

Was pneumothorax induced by a breaking up of old pulmonary and costal pleuritic adhesions, rupturing air, cells and allowing air from the lung to permeate the cellular structure?

Chloral.—An article, lately issued in pamphlet form, from Dr. J. B. Andrews, Assistant Physician at the N. Y. State Lunatic Asylum, in Utica, contains some interesting facts regarding the action of this remedy on the inmates of that institution. Its influence, as shown by the tracings of the sphygmograph, is:—

1. To reduce the number of pulsations (in experiments) from 84 to 45;

2. That the primary effect is to increase the force of the heart's effect and arterial tension;

3. That in large doses, within safe limits, the pulsations are not reduced in number proportionately to the size of the dose, but the effect is more prolonged;

4. That the secondary effect is to diminish the force of the heart's action and the arterial tension.

The phenomena attending the action of the remedy are apparent in from twenty minutes to an hour after it is taken, occurring in the following order, and consisting of a sense of heaviness of the head, a tingling of the extremities, a feeling of weight, as if the part were asleep, and gradually increasing drowsiness. There is an inclination to talk, with thickness of the tongue and inability to speak plainly, especially if the patient is talked to or otherwise disturbed. If he is quiet, he yields readily to sleep, and this intoxicating stage will not be noticed. Then occurs the profound sleep of the chloral. On awakening, if the effects have not completely passed off, there may be a recurrence, in a mild degree, of the stage of intoxication.

The temperature of the body is somewhat reduced while under the influence of chloral in the usual dose, which tends to confirm the assertion that it produces capillary contraction. The usual reduction, according to Bouchut, being $\frac{3}{10}$ to $\frac{5}{10}$ of a degree, centigrade, the lowest he has seen being $1\frac{5}{10}$ of a degree. Bouchut also states that the urinary secretion is profoundly modified, this being most marked on the day following the administration of the remedy, at which time it is increased in density, and, according to Prof. Whewell, contains more uric acid. The result of the experi-

ments confirm the opinion that has been expressed, that chloral does not lead to cerebral congestion.

There have been used in the Asylum since February, 1870, ninety pounds of chloral, which have been administered to 370 cases. The average time of administration being, in the case of men, 39 days, and in women, 43 days. In one case of melancholia, with wakefulness, it was given in twenty-grain doses for 257 nights without losing its effects as a hypnotic, its action being tested by occasionally intermitting the dose. Sixty grains were administered, during an attack of mania, for 195 nights in succession. In several cases the medicine has been repeated once, twice, or three times daily, in from ten to forty grain doses, the average dose being 30 grains and the extreme 10 to 120 grains, the latter dose having been given in a case of profound melancholia, with good effect.

The *ill* effects which have been observed are:—

In some cases it has induced nausea and vomiting.

Unless largely diluted it produces a burning sensation in the fauces and stomach.

In many cases its influence is very rapid, the person falling asleep at once, which sometimes gives alarm to those unused to it.

It does not appear to have been of much service in neuralgia. In some cases it has produced sleep, but the patient has been restless and disturbed, and the pain continued after wakening.

Puncture of the Intestines, for the Relief of Tympanitis, was spoken of at length in the meeting of the Academy of Sciences, at Paris, on the 10th of July, when, in addition to the cases reported by other physicians, M. Fonsragrives stated that he had already performed the operation eighty times with favorable results, the instrument used being a very fine trocar, and the operation being followed by no more serious symptoms than attend the tapping of a hydrocele.

Compression of the Uterus in Expulsion of the Placenta has been treated of at length by Prof. Crédé, of Leipzic, and more recently by Dr. Chautreuil, of Paris. The latter has tried it in five hundred and forty cases, with the result of expediting very much the delivery of the afterbirth, and favoring an early return of the uterus to its normal size. When the uterus has reached the maximum of its contraction after the expulsion of the infant, it is to be grasped between the palms of the hand placed in front and behind it, and steady pressure maintained. The result in the majority of cases is, that the delivery of the placenta is accomplished in a much shorter time than is usual, without being followed by hemorrhage or other unfavorable symptoms.

Phosphates in Pregnancy.—Mr. Metcalfe Johnson, of Lancaster, recommends in the *Medical Times* the hydrated phosphate of lime of the British Pharmacopœia as a remedy for the sickness of pregnancy. He gives it in doses of from three to ten grains each, three times daily, suspended in water, and flavored according to the patient's taste. In some cases the relief has been so striking that patients have sent to ask for "some of that medicine that relieves the sickness." Mr. Johnson thinks the drug may supply phosphates to the nervous system, and also to the embryo, and that if phosphates be not supplied, the child may grow at the expense of the mother's osseous and nervous system.—*The Doctor.*

Remittent Fever produced by an Algoid Growth.—M. Palestra, in a note to the Academy of Sciences, reports the result of a microscopic examination of the waters of the Pontine marshes, and the atmosphere of the city of Rome, and claims to have discovered the presence of an algoid growth which is able to produce, when inhaled, remittent fever. The form which he finds most common, and always in proportion to the amount of putrefying vegetable matter, is slightly granular in appearance, and resembles somewhat the form assumed by the *Cactus Peruvianus*. It is always surrounded by a quantity of little spires $\frac{1}{1000}$ of a millimetre in diameter, yellowish green, transparent in color, contained in larger sacs $\frac{2}{1000}$ to $\frac{3}{1000}$ of a millimetre in diameter, which are of very characteristic form.

He finds that an acidulated solution of arsenic, sulphite of soda, or neutral sulphate of quinine, destroys their power of growth and effects immediate changes in their appearance. Anything which favors the putrefaction of vegetable matter will increase the rapidity of development of this organism, as it is only under such conditions that it finds the soil necessary for its growth.

Sudden Death in Patients Suffering from Cancer.—Dr. Robert Barnes reports a case of this nature, in the *Br. Med. Jour.* of July 19th, occurring in a woman 60 years of age, whose pelvis was filled with morbid growths, involving uterus, vagina, rectum, and bladder. The manner of her death led him to suspect pulmonary embolism, but an exceedingly careful examination, *post-mortem*, showed nothing of this nature. It was found, however, that the viscera and membranes of the abdomen were all more or less studded with cancerous deposits; but what appeared of most importance was the condition of the glands and tissues surrounding the aorta and vena cava, which were so profoundly involved that in many places the walls of the aorta were bent inward and rendered nodulated, the calibre of both vessels being rendered smaller and their walls rigid from the pelvis to the diaphragm. Dr. Barnes surmises that the immediate cause of death, therefore, was over-distension of the heart from its inability to force the column of blood past these obstructions, and he calls attention to the fact that a greater amount of care in the avoidance of exertion might have prolonged the patient's life.

Fungus as a Cause of Whooping-Cough.—The germ theory of disease, which some pathologists seek to extend so widely, has been applied by Dr. Letzerich to explain the extremely infectious disease, whooping-cough. He thinks he has discovered a form of fungoid growth which vegetates in the epithelium of the air-passages, and by its irritation produces the convulsive attacks of coughing. The expectorated mucus in patients suffering from this disease is said to contain masses of brownish-red spores with occasional threads of mycelium, which in later stages of the disease become very abundant. The spores are colored blue by iodine and sulphuric acid. These observations were controlled, first, by cultivation of the spores on pieces of bread soaked in milk, and further, by introducing masses of the fungous growth thus obtained into the tracheæ of young rabbits. This was effected by tracheotomy; but the animals rapidly recovered from the effects of the operation, and in a short time became affected with a cough of a very violent and noisy character—in fact, a genuine whooping-cough. The rabbits thus affected were killed, and their air-passages and lungs found to contain an enormous quantity of the same fungus as that met with in the sputa from human whooping-cough, and, in fact, the mucus expectorated by the rabbits showed precisely the same appearance.—*Half-Yearly Abstract.*

Chloral-Hydrate in Tetanus Monatorum.—Dr. Widerhoffer, of Vienna, showed lately to his class a child three months old, which was attacked by *tetanus monatorum* at the end of the first week after birth, and was treated with chloral-hydrate in doses of one and two grains at the time of each onset of convulsions. It was in danger for a fortnight. During the intermissions of the spasms it was fed from the breast by its mother. It is now a fine, healthy-looking child. This is the sixth case (out of ten or twelve) that Dr. Widerhoffer has had recovered under treatment by chloral; under all other methods all his other cases died. Considering that Vogel and other German authorities on children's diseases had until quite recently never seen a case of this affection recover, such a success may be taken to indicate a real advance in therapeutics. Dr. Widerhoffer gives from two to four grain doses of chloral by the rectum, if the infant cannot take it by the mouth.—*Lancet.*

New Plan of Dressing Wounds.—The latest novelty in the mode of dressing wounds following amputation or other causes, is reported to *The Lancet* by its Paris correspondent. It originated with M. Alphonse Guérin, and consists in introducing cotton-wool into the stump or wound immediately. The amputated limb, to take this example, is then wrapped round with dry cotton-wool, a bandage being then applied, and tightened a little on subsequent days, if necessary, to maintain mild compression. The dressing, however, remains undisturbed until the twentieth or twenty-fifth day, when, on removing the packet of wadding, a glassful of pus is found in the folds of the cotton, and the wound is discovered to be quite healed. Notwithstanding the high mortality which existed during the German siege, M. Guérin obtained six successful results out of nine amputations of the thigh treated with this method, and all of his cases of amputation of the leg did well.

Human Small-Pox and Cow Small-Pox.—At a late meeting of the Medico-Chirurgical Society of Montreal, Dr. Francis W. Campbell (*Canada Med. Journal*) read an extended paper on "vaccination and re-vaccination," and claimed to have proved the following: 1st. That cattle, in many ages and different countries, have been afflicted with small-pox. 2d. That this disease has existed among the inferior animals simultaneously with small-pox in man. 3d. That it appeared among the cattle in England at various times during the 17th century, and that even comparatively recently it has shown itself with considerable severity. 4th. That when the disease appears among the inferior animals in a malignant form, it produces by inoculation a disease of similar severity in man. 5th. That as man has received this affection from the cow, so likewise has it been produced in the cow from man. 6th. That the direct inoculation of the cow with human small-pox has produced a mild and mitigated disease; and that such disease, reproduced by inoculation on man, accords entirely in its character, in its progress, and in its protecting influence, with the variolæ vaccinæ as described by Dr. Jenner, thus irresistibly proving his fundamental proposition, that cow-pox and small-pox are not dissimilar, but identical, and that the vaccine disease is not the preventive, so to speak, of small-pox, but the small-pox itself.

The Removal of Nævoid.—Mr. James F. West, F.R.C.S., senior surgeon to the Queen's Hospital (*Canada Med. Journal*), says the advantages which, in his experience, the *écraseur* offers in the removal of nævoid growths, are, that hemorrhage is avoided—an important element in all operations, but particularly so with children—and that you have a linear cicatrix and comparatively small wound, and thereby prevent or diminish the deformity which, by other operative procedures, will almost of necessity be produced. Chaissaignac, also, claims for it that less inflammatory action and less suppuration attends its use than that of the knife; and consequently, that the wounds resulting therefrom heal more readily, and are less likely to be followed by pyæmia. On these latter points he will not now offer an opinion; but as to the smallness of the resulting cicatrix, a great desideratum in all operations about the face, and as to the freedom from hemorrhage, even when dealing with large growths of this kind, he is quite decided.

A New Test for Hysteria.—A French work just issued by Dr. Chairon (*Canada Med. Journal*), chief medical officer to the Vesinet Asylum, entitled "Clinical Studies on Hysteria," announces the discovery by him of a new pathognomonic sign of hysteria, which, should it be confirmed by experience, will prove to be a valuable contribution to medicine. Since Dr. Chairon has become connected with the Institution he has passed under view twenty-six thousand female patients, amongst whom were a great many cases of hysteria. He says that he has ascertained that in every one of them the commencement of the affection has been marked by the special sign, insensibility of the epiglottis.

The determination of this symptom, which is constantly present, is very simple. It is sufficient to introduce gently the finger into the mouth, so as not to frighten the patient, and place it on the base of the tongue. It will be found that the epiglottis may be touched, displaced, and scratched with the nail without producing the least regurgitation. When this system exists there will be found invariably a congestion of one or both ovaries, usually of the left.

Singular as this proposition is, the author proceeds to prove its exactitude, and has, with that object, quoted a great number of cases collected at Vesinet.

A Fatal Case of Zinc Poisoning.—Dr. J. R. Bronson, of Attleboro (*Boston Med. and Surg. Journal*), describes a case of zinc poisoning occurring in the wife of Col. Horton, of Attleboro, who died from the effects of the salts of zinc, contained in water used for culinary purposes. A heavy responsibility rests upon those who are advocating the continued use of the galvanized pipes for water conduction.

Abortive Treatment of Felons.—A correspondent of the *Boston Journal of Chemistry* writes that it is well known by physicians that pressure causes absorption; and in view of this fact, ten years ago he adopted the plan of applying several coatings of collodion over the finger or place where the pain is felt on its first appearance. On drying, the collodion contracts with an even pressure, and if kept on for twenty-four hours, the symptoms will usually entirely disappear.

Of late he has been in the habit of soaking the affected part in quite a strong solution of carbolic acid for a few minutes before applying the collodion. The pain for some hours will be quite severe, but an anodyne will afford relief.

Cod-Liver Oil in Eczema.—A highly respectable medical gentleman of Charlestown, Mass. (*Boston Journal of Chemistry*), advocates the use of cod-liver oil in eczema, and notes the case of a child, twenty-two months old, who had been afflicted with the affection for nineteen months. Its entire body was covered with the eruption. The use of the oil was suggested, and the child is now nearly well; scarcely a trace of the disease remains. This has been accomplished during dentition.

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

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New York, September 15, 1871.

PREVENTION OF ABORTION.

THE discovery, at a railway station, of a trunk containing the remains of a victim of criminal abortion, has succeeded in creating a sensation in the public mind which may lead to some good result. Causing as it has the exposure, not only of the supposed perpetrator of the deed, but of others engaged in the same nefarious business, it may, temporarily at least, check the operations of the greater number of the craft who have been and are still working in obscurity. Aside from this, the discussion which this and other suspected cases has occasioned, cannot fail to awaken the public, not only to a positive knowledge of the enormity and growth of the crime, but the better to prepare it for solving the important question of prevention.

The persistent efforts of the medical profession to present the subject in a proper light to the public have not been barren of good results in overcoming, to a great extent, a false prudishness. This is strikingly shown in the freedom and candor with which the secular press makes its statement of facts. So far, then, one of the great barriers to the free interchange of opinion is removed, and the ultimate prospect of initiating a reform is proportionately good. The people, also, are beginning to appreciate the importance and necessity of frankly meeting the question, not only by the toleration of references to the enormity of the crime by the press, but by the favorable reception of properly written treatises upon the subject from the profession, by a desire to applaud the actions of judges who measure out the severest penalties against the popular criminals, and by endorsing the pulpit in its radical and effective denunciations. Already the crime is becoming associated in the popular mind with certain death. This is as it should be, as it is one of the most powerful arguments in favor of prevention. A fatal result is a fact which no sophistry or logic can contradict; and the prominence given it by the writers of the daily press is productive of the greatest good to that class of the community which can be reached by no other means than fear. It also becomes a question whether the profession cannot help to strengthen the conviction, and keep alive this wholesome fear by the proper and authoritative statements. The medical man is well enough aware that, all other things being equal, forced abortion is at the best an exceedingly hazardous operation, and that in the vast majority of cases death is inevitable. If the prospective victims of the abortionists could be made to understand and to believe this, a more efficient means of prevention could be adopted than any appeal on behalf of humanity to the unborn could effect. To many the contemplation of the crime of consenting to the death of the offspring is nothing compared with a reasonable certainty that death to the mother may be more than probable.

The public mind being excited on the subject, the profession have more than the ordinary opportunity for doing good by throwing the weight of its influence in the proper direction. With the view of suggesting what such duties should be, we will present our readers with the following sensible and comprehensive resolutions, presented by Dr. D. H. O'Donnell, of Maryland, at the last meeting of the American Medical Association:—

"*Resolved*, That we repudiate and denounce the conduct of abortionists, and that we will hold no intercourse with them either professionally or otherwise; and that we will, whenever an opportunity presents, guard and protect the public against the machinations of these characters by pointing out the physical and moral ruin which follows in their wake.

"*Resolved*, That, in the opinion of this Convention, it will be unlawful and unprofessional for any physician to induce abortion or premature labor, without the concurrent opinion of at least one respectable consulting physician, and then always with a view to the safety of the child—if that be possible.

"*Resolved*, That we respectfully and earnestly suggest to private teachers and professors in public institutions the propriety of adopting, according to their judgment, the means best suited for preserving their pupils, and those who may hereafter come under their care, from the degrading crime of abortion.

"*Resolved*, That we respectfully call the attention of the clergy of all denominations to the perverted views of morality entertained by a large class of females—aye, and men also, on this important question, and the ruin which has resulted and continues to result daily to the human family from such views.

"*Resolved*, That we respectfully solicit the different medical societies, both State and local, to send delegates to the clergymen in their respective districts, to request their aid in so important an undertaking.

"*Resolved*, That it becomes the duty of every physician in the United States, of fair standing in his profession, to resort to every honorable and legal means in his power to crush out from among us this pest of society; and, in doing so, he but elevates himself and his profession to that eminence and moral standard for

which God has designed it, and which an honorable and high-toned public sentiment must expect at the hands of its members."

The means of prevention referred to in the final resolution are very many and important. Not a few have already been resorted to in the shape of enlisting the aid of the pulpit and press in educating the people to a proper appreciation of the wickedness and danger of the crime, etc., etc. But this has not been sufficient, and the emergencies of the hour call not only for further efforts in that direction, but for an expression of opinion in regard to an increase in the severity of punishment to the abortionists. On a previous occasion, in remarking upon the general subject, we referred to the practicability of such a measure, and now reiterate it. The idea was, however, not original with us. It has long been entertained by medical men. The prospects of some change in the law are now, we are pleased to say, foreshadowed by the remarks of Judge Gunning S. Bedford in his charge to the Grand Jury concerning the punishment of abortionists. He suggests that the crime should be considered manslaughter in the first degree. If this suggestion could be carried out, and our next Legislature alter the law accordingly, the murder of the unborn would be less likely to be a mere matter of dollars and cents.

Those who shrewdly surmised that the official agitation of cundurango in the State Department at Washington was a puff preliminary to private speculation in the mysterious virtues of that plant, have had their prediction fulfilled sooner than they could have expected. It was, perhaps, fitting that the only person who has succeeded in discovering any efficacy in the administration of the drug should vindicate his superior acuteness by getting up a "corner" therein; and accordingly Dr. Bliss has philanthropically abandoned the emoluments of private practice in the national capital, and devoted his energies to the diffusion of cundurango in New York at the moderate price of $100 per pound. It is to be regretted that the efforts of the Government to promote the success of Dr. Bliss's enterprise have been to some extent frustrated by the obstructive jealousy which notoriously governs the medical profession,—the physicians who were requested to buy cundurango having unanimously reported that they found it entirely inert, and analytical chemists having wickedly omitted to detect in the samples sent them any principle which could be supposed to possess a curative action. It is still more unfortunate that of the six patients treated with the new and infallible remedy, whose cases have been reported in medical journals, four have died before they were quite cured. But these, after all, are small matters from a commercial point of view, and Dr. Bliss is able to point triumphantly to the fact that two of his three recorded patients survived the ingestion of numerous doses, and would, perhaps, have recovered altogether if it were not that his stock of the drug was suddenly exhausted at the most inopportune moment. He is, moreover, happy in the privilege of referring in his printed circular to Vice-President Colfax, whose opinion on any question of pathology or therapeutics must of course be accepted as conclusive.

Having been at the pains to send his partner all the way to South America, to buy up all the cundurango wood that could be procured, it is natural that Dr. Bliss should attach a high value to a substance of which he alone appreciates the full merit, and that he should decline to sell less than twenty-five dollars worth at a time, in order that the afflicted poor may be deterred from buying it in inadequate doses. The petty prejudice entertained by the medical profession generally against advertisements of a panacea for "cancer, scrofula, and other blood diseases" will not, we are sure, be allowed to carry weight with an enlightened public when opposed to an official correspondence between the Secretary of State and our Consul at Equador; and the adverse reports of proverbially ill-informed army surgeons, as well as the bigoted exclusiveness of the "regular" physicians in Washington, will be attributed to their proper cause—envy of the superior attainments of a gentleman who has forestalled his rivals in a great discovery, and who naturally wishes to turn this discovery to the best advantage.

Reviews and Notices of Books.

A Practical Treatise on the Medical and Surgical Uses of Electricity, including Localized and General Electrization. By George M. Beard, M.D., and A. D. Rockwell, M.D. With 102 illustrations. Wm. Wood & Co., New York. 1871. pp. 698.

This is one of the most elegant volumes in its typographical appearance that has been issued from the New York medical press. Printed with clear type upon good paper, and neatly bound, it is both attractive and convenient to read. Its authors, now well known to the medical public, have devoted exclusive attention for several years to the various applications of electricity in medicine, and are endorsed and supported by men of the very highest professional repute, who place many of their own patients under the care of these gentlemen for special electrical treatment.

The subject-matter of the volume before us opens with forty-two pages devoted to electro-physics, and although we consider that this subject might well be dispensed with in a work devoted to medical therapeutics, we are glad to see that they have bestowed much less space to this threadbare, worn topic than the numerous other authors on the same subject, who seem to take it for granted that their readers cannot possibly have acquired any information at all on the physics of electricity, a subject which has been ding-donged into the ears of the advanced scholar in the public schools and private institutions of this country since Franklin raised his famous kite at Philadelphia. We trust one of these days to see a medical work on electricity, which will refer the uninformed reader to works on natural philosophy for a knowledge of the physical laws of electricity.

The subject of electro-physiology, which occupies the next fifty pages of the work, is an important one to the medical man, on which he looks to be informed by professional writers on electricity; and while the resumé given of the existing knowledge of electro-physiology is accurate and up to time as far as it goes, we should have preferred to have had forty of the previous pages contain additional matter of this kind. A condensed history of electro-therapeutics, which follows, is well compiled and not tiresome to read over, and satisfies us better as to what such a chapter should be than the pedantic histories we have seen elsewhere. In their description of apparatus, too, our authors have very wisely departed from the example of their predecessors, who seem to take delight in displaying an acquaintance with the innumerable varieties of apparatus which have been devised from time to time; and they describe only those forms of apparatus, galvanic and faradic, which they have found to best answer the requirements of practice; and they give us several correct indications, the fulfilment of which, in any other form of apparatus, will be likely to give equal satisfaction. The form of battery, or machine, although in some respects of importance, is in the main of much less importance than a knowledge of the proper use of it; and this is one reason why we would have welcomed additional instruction in the division allotted to electro-physiology, which must after all be the starting-point for all rational employment of electricity in any and every of its forms. The well-known apparatus of Kidder, of New York, is the faradic apparatus justly recommended by our authors. We have seen the instruments of Duchenne, Guiffe, Seiler, DuBois-Reymond, and several other foreign medical electricians, and we have seen them at work; and we are satisfied that for all ordinary purposes, and for most of the special indications, Kidder's battery answers equally as well, while it has the merit of greater simplicity in construction.

For the battery-current, our authors recommend the zinc-carbon elements of Stöhrer of Dresden, which requires the use of two fluids, and is therefore tolerably constant; but where a battery is not required for a long period at a time they recommend the elements of Smee, which, having but one fluid, is more manageable, and of constancy sufficient for most purposes at its first immersion; though it loses power so rapidly that, for continuous use, another form of element is more desirable, as that of Stöhrer, Daniel, Siemens, etc. By having an arrangement for removing the elements from the solution when the battery is not in use, the force of the battery is conserved in great measure.

An important point in this connection, which has apparently escaped our authors, is the necessity for the use of a galvanometer, if anything like accuracy is required in the scientific, physiological, or therapeutical applications of electricity.

The deflection of the needle will indicate the condition of the battery, and having once adopted a standard, we are able to regulate the number, arrangement, and degree of immersion of elements to be used in a given instance, so as to make allowance for any discrepancy between the action of the battery at one time and at another. The testing of the current by one's own sensations is insufficient for the scientific use of electricity, and much of the confusion in the results attained by different observers may be traced to a want of due attention to this point. We think our authors might have alluded here also to the value of the rheostate as a regulator of the resistance of a current, of which they barely more than make mention, at page 551, in connection with the subject of Brenner's investigations into the normal physiological reaction of the acoustic nerve, when subjected to the influence of the current from a galvanic battery.

The main subject of the book is that of general electrization, as it is called by our authors, a department to which they have devoted the most of their attention, and which is beginning by their efforts to attract attention abroad, so that in some recent works it is mentioned as the American method of electrization. It consists in passing a faradic current, or the current from an inductive apparatus, over and through the entire body; one pole being connected to the feet or hands of the patient, and the other gradually perambulated, as it were, over the entire cutaneous surface. Special directions for this purpose, distinctly written and illustrated by an excellent series of woodcuts, are given, to which we refer the reader. The action of electricity applied in this manner is said to be that of a stimulating tonic, under the influence of which the whole system, or nearly the whole system rather, is gradually and successively subjected.

A very careful perusal of the cases narrated further on in the body of the work, and a slight personal knowledge from a very few cases subjected to the influence by ourselves, after having witnessed some of the manipulations of the authors a few years since, draw us strongly to the conclusion that the action of electricity applied in this way is much like that of gentle but positive friction applied to the entire surface; and similar in its influence to shampooing, delicate flagellation, the various applications of heat, etc. We recognize that the skin affords a vast surface upon which to act in influencing morbid processes; and the continued passage of an electric current over the skin must rouse its component parts into action, under the influence of which waste and repair may again go on in their natural channels, and the incubus be removed upon which the diseased state depends. Electricity no doubt is the pleasantest and most efficient means we possess of dissipating the inactivity of the cutaneous surface so frequent in chronic disease, be it of the digestive, respiratory, or glandular system; and this we are disposed to think it is, aroused by electricity, and not any special virtue in the electricity itself, to which the favorable results are due. It is not unlikely that systematic shampooing, friction, etc., over the entire surface would produce equally favorable results; for they have followed the resort in many instances to systematic muscular action, of course affecting or moving the skin too, as employed in the Swedish Movement Cure. That general electrization does produce the beneficial results there is no doubt, and hence it should be practised under suitable circumstances by those who have the time at disposal necessary for its employment.

Our authors are decided advocates of the feasibility and propriety of galvanizing the sympathetic in the neck. Their experience as yet is not very great, so that they do not speak in its favor with great positiveness; and we have had ourselves no experience of this kind at all, so that we are unable to pass any judgment upon this point. The subject is in great dispute; the possibility of influencing the sympathetic by the application of an electrode over the unbroken skin being positively denied by some very reliable authorities.

The subject of local electrization, made so famous by the labors of Duchenne, is duly considered in the volume before us, with ample directions for the employment of the necessary electrodes and the selection of cases. Some special diseases in the treatment of which electricity seems particularly adapted are briefly discussed, and their treatment illustrated by cases, among which, to do the authors full credit, they have not failed to give due prominence to their unsuccessful efforts.

The subject of electro-surgery receives a little attention; but the experience of our authors having been chiefly directed to medical electrization, they do not handle the subject with as much skill and confidence as they do the mass of the volume; though they give us a very good account of the history, theory, and practice of electro-surgery, with a mass of notes and references to which those interested may resort for further information on the subject.

A glossary and index complete the work, which is preceded by an argumentative preface, a copious table of contents, and an extensive list of authorities quoted and referred to.

In the arrangement of their material, in the presentation of their subject-matter, in the scope of their studies, in the manly though modest manner in which they press their own views, and in the very attractive manner in which the volume is published, Doctors Beard and Rockwell must be complimented as having produced a very readable and instructive work on medical electricity, and one which will, perhaps, answer the requirements of the busy practitioner better than any single work on the subject which has appeared in original English or been translated from a foreign language.

A Manual of Midwifery, including the signs and symptoms of Pregnancy, Obstetric Operations, Diseases of the Puerperal State, &c., &c. By Alfred Meadows, M.D., London; Member of the Royal College of Physicians; Physician to the Hospital for Women, and to the General Lying-in Hospital; Fellow of the Berlin Obstetrical Society, &c. First American, from the second London Edition, pp. 473, octavo. Philadelphia: Lindsay & Blakiston.

In his preface the author describes this book as intended for the use of students. Measured by the monumental treatises of Churchill and Cazeaux, it is comparatively a small book. As a magazine of statistics and obstetrical history and bibliography it is inferior to them. It is, nevertheless, a very good book. The author is a man of very clear and just mind. He writes from a large personal experience in obstetrics, from full and ready knowledge of the standard authorities, and of the more recent current literature, and he has made a clear and symmetrical statement of the present aspect of theory and practice in this department.

There are no striking novelties in the book. It is not written to exploit a pet theory, to parade a professional success, or to display a great learning. It gives appreciation, always generous, and never enthusiastic, to all co-workers in the field. It wastes no time on doctrines which are outgrown, and methods which are obsolete. Fully possessed with the importance of his subject, the author gives us his best thought, unstained by pedantry or self-conceit. There are some verbal blemishes; *e. g.* the words "peritonic" and "peritonitic" for peritoneal, "tubarian" for tubal, "diagnose" for diagnosticate, and occasionally a thick sentence, as when he talks of "the hyperæmic condition of the blood," but they do not materially impair a direct and lucid style.

He gives to each topic its fair proportion of space, and keeps out all irrelevant matter. He treats all themes with facility, and refuses to claim more for either science or art than a prime regard for truth allows. That the book is written in the paramount interest of the patient will commend it to every working man. The chapters on Craniotomy and the Cesarean sections are particularly valuable, and the author's attitude in giving frequent preference to the latter over the former is in strong contrast with that of Dr. Barnes. The chapter on Puerperal Fever also so divides and discriminates the various conditions often classed under that general term, as materially to aid the practitioner in understanding what he may have to deal with in any given case.

Handy Book of the Treatment of Women's and Children's Diseases: According to the Vienna Medical School, with Prescriptions. By Dr. Emil Dillenberger. Translated from the Second German Edition by Patrick Nicol, M.B. Reprinted from the English Edition by Lindsay & Blakiston, Philadelphia.

This "Handy Book" appears to be the third of a Series, the two preceding having been devoted to General Medicine and Surgery respectively. The present issue is a neat thin octavo of 195 pages, containing brief essays upon 114 morbid conditions, thickly strewn with 360 formulæ for prescription. Neither ætiology, semeiology, or pathology are considered; therapeutics alone are represented. The book cannot be commended to students of medicine, and is not likely to satisfy practitioners who wish to be well informed upon any of the topics discussed. That is the general fault of books of this class. As a specimen of its kind this is unusually interesting and valuable, for it presents very largely the methods and results of Austrian medicine, and the details of Austrian pharmacy, for comparison with methods and details more familiar to us. Furthermore, the author is evidently well versed in modern medicine of all lands, although he professes to adhere to that of his own.

Many of the essays seem to be as thorough and complete as the plan allows. The opinions of Braun, Skoda, Oppolzer, Spaeth, Arlt, and Luszinsky are fairly presented. The modern doctrines of inflammation, the febrile process, and the nervous system govern the therapy. Notwithstanding the marked continental tendency to polypharmacy, there is less that is traditional and old-fogyish than might well have been expected. The diseases of women are better treated than those of children, according to our ideas. The chapters on puerperal eclampsia, milk fever, and Bright's disease are, as might be expected, particularly good; while those upon vesico-vaginal fistula and placenta prævia are not up to the American and British standard. the same is true of ovariotomy. In the treatment of croup less space is given to the approved plans than to the reprobation of calomel and iodine medication. Altogether the book is very readable, and not destitute of mnemonic value to those who are more or ess familiar with the sources from which its ideas are drawn.

Reports of Societies.

[*Official.*]

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 28, 1871.

Dr. A. L. Loomis, President, in the Chair.

INSANITY, COMPOUND FRACTURE OF SKULL FROM A BLOW —DEATH FROM PROBABLE NERVOUS EXHAUSTION.

Dr. Finnell exhibited a portion of the brain, skull, and dura mater removed from an insane man, who died suddenly eight days after having received a fracture of the skull. The injury was inflicted with the bilt of a

sword, in an attempt to quiet the patient while he was suffering from a violent attack of acute mania. The effect was all that could be desired in the way of controlling the paroxysm, and was explained by the existence of a compound complicated fracture of the skull. A surgeon was called, and finding the bones depressed, proceeded to trephine. A button of bone was removed, and, as the specimen showed, a portion of the dura mater with it. The brain was lacerated and softened; otherwise there seemed to have been no signs of marked inflammation in the neighborhood.

Dr. Rodgers thought that the removal of the dura mater was caused by the firm adherence of that membrane to the bone, the result in turn of a chronic inflammation of the membrane, often met with in the insane. He also believed that the sudden death of the patient, after an apparent mitigation of the symptoms, was due to exhaustion of the nervous force.

Dr. Finnell believed that in the majority of cases in which the trephine was used, the desired result could be better accomplished by the rongeur and the forceps. By means of the former, enough of the edge of a fragment could be gnawed away to allow of the introduction of the elevator.

INTERESTING CASES OF CARDIAC DISEASES.

Dr. Loomis exhibited two specimens of disease of the heart, with similar histories and similar valvular lesions. Both of the cases were under his observation for a considerable time before their death, and exhibited points in diagnosis of more than usual interest. He gave the following accounts of them:—

The first one was taken from the body of an English laborer, 31 years of age. He was an inmate of Bellevue Hospital since the third of last September. He dated his first illness to ten years ago, when he had an attack of acute articular rheumatism, which confined him to his bed for five or six months. Soon after his recovery he noticed that he had shortness of breath and vertigo, especially after exertion, that he had a cough unaccompanied by expectoration, which he never had before. He got along pretty comfortably until the fall of 1868, when he was compelled to enter Charity Hospital on account of an attack of subacute rheumatism, with more than usual dyspnœa. His dyspnœa was so great that he was unable to lie down; and his cough was attended with a frothy expectoration, occasionally mixed with blood. He remained four months, at the end of which he felt so far recovered as to be able to go into the country and do the chores around a farm. He lived in that way working for his board, but always suffering from dyspnœa when called upon for extra exertion, until last September, when he sought admission on account of weakness and dyspnœa, being unable to work any longer. At the time of admission he was very anæmic and pale, and on slight exertion his lips would become blue, and his difficulty of breathing would be very great. He had a cough, and complained a good deal of pain in the right side and in the region of the heart. Examination at the time of his admission revealed the physical signs of chronic bronchitis. The feebleness of the vesicular murmur was particularly noticeable all over the chest. This was not due to emphysema, for although there was a loss of the normal pulmonary resonance, it was not vesiculo-tympanitic in character—in fact it was rather duller than natural.

The apex of the heart beat half an inch below, and one and a half inches to the left of the left nipple—perhaps when he entered not more than an inch to left. The impulse was more forcible than natural, and was accompanied by a purring thrill. The area of precordial dulness was somewhat increased to the left—not enough to indicate very great hypertrophy. The area was increased also upward.

On auscultation, four murmurs were distinctly heard. There was a murmur *before* the first sound with greatest intensity at the apex—mitral obstruction; a murmur *following* the sound, most distinct at apex, and conveyed behind and to the left—mitral regurgitation; a murmur at the base, presystolic, and conveyed along the artery—aortic obstruction; and occasionally a murmur at the base with the second sound heard as low down as the ensiform cartilage—aortic regurgitation.

Under digitalis and iron he recovered sufficiently to be able to attend to some of the duties of a helper about the wards, and he would be comparatively free from attacks of dyspnœa if he did not go up and down stairs.

Nothing was worthy of note in his case until the fifteenth of the present month, when he caught a severe cold while sitting on the balcony. Within twenty-four hours he became the subject of general anasarca. His dyspnœa then became extreme, forcing him to assume a semi-recumbent position, and he was only able to crawl from his bed to the water-closet, a distance of twenty feet. Digitalis did not seem to relieve him as before. On the 23d inst., while returning from the water-closet, he fell dead.

At the autopsy the brain was not examined. The lungs were found presenting the appearance of brown induration. The tissues of these organs were hard, resistant, containing but little air, and being of a very dark color. The liver was about its normal size, but was of a firm, dark color, presenting rather a nutmeg appearance, and having all the characteristics of chronic hyperæmia. The kidneys were hard, but of normal size, and presented the characteristic appearance as described by some of the German writers as the indurated kidney of heart disease. It is a peculiar condition of the kidney which I do not think is met with except in company with obstructive or regurgitative disease.

The heart was a little above the normal size. The right ventricle was considerably dilated, and also hypertrophied. The auriculo-ventricular orifice is not very much, if any, increased in size. It admits the three fingers, but no more. The aortic valves are thickened, ulcerated, and have calcareous deposits in them. It seems as if there should have been a good deal of regurgitation, but when placed together they close the orifice very well. The right and left auricles are very much dilated and distended with blood, so that the auricles were as large as the ventricles when the heart was removed from the body. The mitral orifice will not admit the end of the little finger. The valves are thickened and hardened, and the cordæ tendineæ are shortened, and also thickened, so as to give the auricular portion of the mitral a funnel-like appearance. In fact it is as good an example of mitral stenosis as I have ever seen.

The other heart was taken from a man twenty-four years of age, who was admitted into Bellevue about two months ago for the first time. He dated his first illness to five years ago, when he had an attack of acute articular rheumatism, and kept his bed six months. During this sickness he had considerable precordial pain, and before he got out of his bed he suffered from palpitation. Within a few months after this he had a profuse hemoptysis and a cough. That cough has been with him ever since, and the expectoration has been frothy. He suffered a good deal from dyspnœa, but got along pretty well if he did not indulge in severe exertions. By and by his heart bothered him

with palpitations at night, and they would keep him awake, and occasionally he would have giddiness. He came into the hospital with dyspnœa and vomiting; the latter first appeared about two days before. The heart's action was very forcible at that time. Physical examination of the chest revealed the existence of marked pulmonary emphysema. The apex of the heart beat three inches below and two inches to the left of the left nipple. Auscultation detected a murmur before the first sound at the apex — mitral obstruction: a murmur after the first sound at the apex, conveyed back and heard behind—mitral regurgitation; a murmur at the base with first sound heard along the arteries—aortic obstruction. Along with the existence of these murmurs, the diagnosis of hypertrophy with dilatation was made. Digitalis and iron, freely administered, controlled his bad symptoms so effectually, that in the course of two or three weeks he felt so well that he took his discharge. He returned in ten days with the same symptoms. The remedies formerly used failed to have any effect, and one morning he turned over in his bed and died.

At the autopsy the lungs were found emphysematous, and subject to the brown induration. Dr. Delafield, who was present at the examination, stated that he had never seen the two conditions coexisting before. The heart is hypertrophied, both in the right and left side. The right ventricle is as thick as the left ventricle in a normal condition, and its cavity is is very much dilated. The auriculo-ventricular opening is enlarged, and will admit the four fingers. The aortic valves are much thickened. The left ventricle is very considerably dilated, the walls being twice their normal thickness. Both right and left ventricles are very much distended. The distention was even greater than in the first case. They were also filled with blood. The mitral valve is thickened, indurated, calcified, and ulcerated. There is also marked stenosis of this valve, the stenosis being mostly caused by the calcification. In both cases casts and albuminuria were absent, and in the latter no anasarca. Both cases died suddenly, apparently from over-distention of the auricles. Both had marked mitral stenosis. In the second case the liver presented the same appearance as in the first, and the kidneys were even harder. Both cases were in the same ward; both under observation at the same time; both died the same day (24th); both suffered from dyspnœa, the result of the brown induration; both illustrated the fact that mitral obstruction is most apt to produce destructive changes in other organs of the body than any other cardiac valvular lesion; and in both the diagnosis as made out before death was exactly verified at the autopsy.

Dr. C. C. Lee was surprised to find that no great amount of hypertrophy existed in these cases of obstructive disease. In view of the acknowledged therapeutic value of digitalis, he also thought it strange that the remedy should not be more extensively used. He had not unfrequently met with cases in which it had not been employed at all.

Dr. Loomis said that this latter was in a measure explained by the want of reliability in the drug. As usually found in the market, it was good for nothing. He was in the habit of relying entirely upon the infusion made from the fresh English leaves (℥ss—Oj.). There was an exception to its universal use in cardiac disease, and that was in cases of pure hypertrophy without dilatation.

Dr. Rogers asked why death in Dr. Loomis' cases could not be explained by syncope, the ventricles not being able to send the requisite quantity of blood to the brain.

Dr. Loomis thought that the distention of the auricles was in itself a sufficient cause for death.

Dr. Finnell remarked that it was the rarest possible condition to meet with distention of the auricles in cases of sudden death.

The Society then went into Executive Session.

WAYNE COUNTY, INDIANA, MEDICAL SOCIETY.

Stated Meeting, July 6, 1871.

RENEWAL OF PRESCRIPTIONS.

James F. Hibberd, M.D., of Richmond, Ind., remarked as follows:—A gentleman aged 27 years, in Brooklyn, N. Y., waited on his sick father until the father died, and he was much exhausted. Wishing to procure sleep, he took a vial that had held an anodyne for his father, and sent it to an apothecary for a renewal of the prescription. The bottle was labelled "Hydrate Chloral," and the dose directed on the label was two teaspoonfuls at stated intervals. The apothecary refilled the vial, and the gentleman took a teaspoonful and a half of the medicine without consulting a physician. He soon after became unconscious, and died in a few hours despite the exertions of the medical attendants.

The coroner's jury returned a verdict of death from an overdose of hydrate chloral taken by the victim on his own responsibility, he being ignorant of the effect of the medicine. These facts are derived from the Medical Record of May 15, 1871.

Who is to blame?

One man is ready to say the victim alone is to blame. If he chose to prescribe for himself without consultation with his physician, he only can be held responsible for the consequences. And this is true to a certain extent.

Another man will say the apothecary is really a party to the wrong, as he should not have renewed the prescription without an order from the physician who made it. And it is true the apothecary should not have renewed the prescription without an order to that effect from its maker.

What is the common method of having prescriptions renewed?

When I call to see a patient and decide that I wish him to continue a medicine heretofore prescribed, but which has been exhausted, I merely direct verbally that the prescription be refilled. A messenger is sent with the old label, and the apothecary regards its presentation as an order for renewal from the proper authority, and renews it accordingly without question.

Brooklyn doctors and apothecaries follow the same rule, I fancy. It is quite likely, in fact, that this prescription had been renewed several times before—all that any one deemed necessary to have the bottle refilled being to present it with its label at the counter where it was originally compounded. Under this showing we must therefore hold the apothecary blameless in the case under consideration, as he had done nothing more nor less than to follow the custom of the day and place.

This leaves the onus of the error with the victim or the doctor. That the victim was at fault there is no room to question. There is no excuse for the rashness of a sane man who deliberately takes medicine prescribed for another, without positive knowledge of the powers of the medicine he takes. The penalty of such rashness in this instance was the demise of the party who had the temerity to engage in it. And with this

aspect of the affair we have nothing to do as simple practitioners of medicine. If men choose to take medicines that prove poisonous without consulting us, we are in nowise morally or professionally responsible for results.

Then in what way had the doctor any lot or part in this Brooklyn man's death? Only this: it was the renewal of the doctor's prescription that afforded the man the privilege of poisoning himself while thinking he was soothing himself to needed and refreshing sleep. If the pharmacist had been under instructions not to refill any prescription of the doctor's making without a written order, he should have declined to give the medicine to the messenger who brought the bottle; the young man, unable to procure the medicine without an order from the doctor, would have consulted him, and all mischief would have been avoided.

It is quite possible that the apothecary would have dispensed the medicine without the written order if it had been insisted on; but in that event all responsibility would have attached to him and to the party who demanded the medicine, and no color of wrong could have been attributed to the doctor. As it is, however, the doctor must be held for the renewal of the prescription, and must bear whatever that entails. This is not as it should be. Whatever of evil grows out of the wrong habits of a doctor he is responsible for, and is doubly culpable if he be aware of the wrong habit and refuses or neglects to amend it.

There are several objections to the unauthorized renewal of prescriptions, most of which would be abated by the adoption of a rule by medical men that no prescription was to be renewed except on the written order of the original maker. If, under such circumstances, the pharmacist should some time refill without such order, the doctor would have no responsibility; and while he might deprecate any mischief that came of it, he would feel no more concern for the wrong than if it had come through any other channel.

As doctors, our reasonable duty is to take such measures that no apothecary can fail to comprehend when a doctor has authorized the renewal of a prescription that has been before compounded; and this can be easily and certainly done by having a rule that no renewal shall ever be ordered except in writing, and from this rule there must be no swerving under any circumstances.

To test the sense of this Society in this behalf, I offer the following resolutions:

Resolved, By the Wayne Co. (Ind.) Medical Society, that members of this Society, when ordering the renewal of prescriptions, shall do so in writing.

Resolved, That the several apothecaries within the territory represented in this Society be served with a copy of these resolutions.

The resolutions were unanimously adopted.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, September 4, 1871.

Dr. T. C. Finnell in the Chair.

The Secretary announced the absence in Europe of the President, Dr. Jacobi, and his regret at being unable to be present at the meeting.

The Chairman announced the admission to membership of Drs. Edward W. McDonald, Allan M. Hamilton, Celestia A. Loring, Geo. Bayles, Nathaniel R. Mosely, Francis V. White, Sarah A. Coon, and Edwin D. Ramsdell.

NOMINATIONS.

The following nominations, to be voted upon at the next regular meeting (Oct. 2), were then made:

For President: Drs. Abraham Jacobi, Austin Flint.

For Vice-President: Drs. Ellsworth Eliot, T. C. Finnell.

For Recording Secretary: Drs. A. E. M. Purdy, Alonzo Chadsey.

For Corresponding Secretary: Drs. B. S. Thompson, F. A. Castle.

For Treasurer: Drs. J. E. Janvrin, S. Caro.

For Censors: Drs. Stephen Rogers, John C. Peters, T. C. Finnell, W. M. Chamberlain, Charles S. Wood, C. C. Lee, Edward S. Dunster, F. P. Foster, S. A. Raborg, S. Caro, David Magie.

For Delegates to the State Society, for three years, to fill vacancies caused by the appointment of Dr. T. A. Emmet as Permanent Member, and by the decease of Dr. J. J. Connolly: Drs. S. J. Clark, A. Chadsey, J. R. Leaming, S. A. Raborg, E. Peuguet, M. H. Henry, E. B. Warner, W. B. Neftel, C. A. Leall.

THE JACOBI PRIZE.

The Secretary announced that the Comitia Minora had adopted the following circular, and appointed the Prize Committee as therein designated:—

"Prize Essay on 'Diseases of Children.'—*Open for Universal Competition.*—The President of the Medical Society of the County of New York, Dr. Abraham Jacobi, has placed in the hands of its Treasurer four hundred dollars ($400), to be awarded for the best essay on '*A History of the Diseases of Infancy and Childhood in the United States, and of their Pathology and Therapeutics.*'

"Competitors will send their essays, in English, with motto attached, and the name and address of the writer, with the same motto, in a sealed envelope, to the present Secretary of the Society, Dr. Alfred E. M. Purdy, 123 East Thirty-eighth Street, New York, on or before January 1st, 1873.

"The Committee are authorized by the Society to withhold the prize if the essays submitted should not merit it.

"Austin Flint, M.D.,
Ernst Krackowizer, M.D.,
Edward S. Dunster, M.D. } *Committee.*"

DECEASED MEMBERS.

The Secretary announced the death, since the last meeting, of the following members: Drs. George Wilson, Cyrus Ramsey, Montross L. Smith, and J. J. Connolly.

On motion of Dr. Chadsey, the chair appointed as a committee to present suitable resolutions upon the subject at the next meeting, Drs. J. C. Smith, R. A. Barry, Freeman Nichols, and S. J. Clark.

AMENDMENTS TO BY-LAWS.

Notice was given of several amendments to the By-Laws, to be submitted for adoption at the next meeting:—

The first, second, and third of the proposed amendments provide for a committee on Registration, as one of the permanent Committees of the Society, in accordance with a resolution of the State Society, and defines the duties of this committee, to prepare and keep on file, open to inspection, a list of the respectable practitioners in the county of New York, and, so far as practicable, to prepare also a list of all reputable physicians and surgeons who have heretofore lived and practised within the present county limits.

The fourth and fifth amendments change the regular day of meeting of the Society from the first to the last Monday in the month.

The sixth makes the affirmative action of the Comitia Minora, upon admission to membership, subject to the approval of the Society by a two-third vote.

The Secretary read the names of delinquent delegates to the last meeting of the State Society. The meeting then adjourned.

Correspondence.

QUININE AND THE ERUPTION OF VARIOLA.

To the Editor of the Medical Record.

Sir:—As it has been asserted that "quinine" has a tendency to prevent the eruption of variola, I will mention a case recently occurring in my practice which seems to corroborate that view, in so far as there was no pustulation. Miss M., aged 20 years, vaccinated in childhood, was exposed to variola at various times during the preceding 30 days. When I saw her, July 29, she had been suffering two or three days with severe headache and pain in the back. Suspecting variolous disease, I prescribed quinine in five-grain doses, three times daily, with the view to test its efficacy in aborting the eruption, as well as to relieve if possible the headache. On the morning of the 31st the eruption, however, came, and on the following day was so profuse as to promise a case of confluent variola. Tincture of iodine was applied to the face to prevent pitting, and quinine continued in two-grain doses three times daily during the following seven days, by which time the eruption had *almost wholly dried up without pustulation*, with the exception of a few on the back and arms. Now it seems to me probable that the quinine had some agency in preventing the pustulation of the eruption, and although iodine may have had some local effect to that end, I cannot think the whole eruption on the body was influenced by it. Many years ago I used tincture of iodine successfully for that purpose, applying it in the early stage of the eruption, and prevented any marking.

I should recommend the further trial of quinine, as it is useful in allaying the pains and possibly preventing the pustulation of variola. Respectfully yours,

R. B. Bontecou, M.D.

Troy, N. Y., 82 Fourth Street.

SPECIFIC TREATMENT FOR SUMMER COMPLAINT OF CHILDREN.

To the Editor of the Medical Record.

Sir:—In view of the fact that the mortality reports of our cities at this season of the year show such a large ratio of deaths among children from "cholera infantum," it may not be amiss to make known the results of a practical experience, which to me have been a source of no little felicitation, and to hope that they may prove beneficial to others. In recording these observations I beg to offer my humble testimony in support of a plan of treatment mentioned by Dr. Salvatore Caro in your issue of June 15, 1869. During a residence of two summers at the Artillery School, Fort Monroe, Va., I had occasion to treat a great number of infantile diseases, among which were many severe cases of cholera infantum, and other ailments incident to dentition. I was informed that previous to the summer of 1869 there was no disease at that post attended with higher mortality, or which gave the medical officers stationed there more trouble and anxiety, or was treated with less satisfactory results. The introduction of the bromide of potassium was attended with the most marked success, not one case having died during the two summers; in fact, the drug was regarded by the medical officers stationed there as a specific, and was quite as prompt and efficient in this respect as quinine in controlling ague. The medicine was usually prepared by mixing from twenty to forty grains of the bromide with two ounces of mucilage acaciæ; the dose being from ten drops to a teaspoonful and regulated according to circumstances. Occasionally a drachm of krameria was added to this preparation. It is well to remark, however, that the mixture proved more efficacious when recently prepared, as it is liable to become sour when kept for any length of time. In addition to the administration of medicine, careful attention to hygienics was enjoined; a warm bath, as preferable to a cold one, with gestation in the open air—preferably in a sail-boat—and above all strict attention to diet. The food found best to prevent the little patient from *starving to death* was a highly nitrogenous one, being prepared by pounding a small quantity of fresh beef in a linen cloth, and expressing the juice, to which is added a very small seasoning of cayenne pepper. From two drops to a teaspoonful may be given from time to time. Minute quantities of brandy were administered when its use was indicated.

Within the last month I have pursued a course of treatment similar to the above, and have had the most gratifying results to follow. The therapeutical value of bromide of potassium has already been mentioned in Circular No. 4, Surgeon-General's Office, in a report of Surgeon George E. Cooper, U. S. A., to whose practical shrewdness and intelligent observation I am indebted for whatever value may be attached to the foregoing remarks. Very respectfully,

Irving C. Rosse, M.D.

War Department, Surgeon-General's Office, Army Medical Museum, Washington City, D. C., August 11, 1871.

New Instruments.

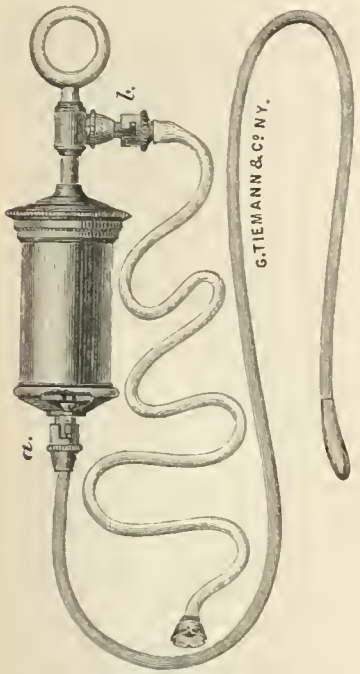
TIEMANN'S STOMACH-PUMP.

The stomach-pump is such an important instrument that no practitioner of medicine should be without one. By it an operation can be performed which can be done by no other contrivance—an operation which, in the large majority of cases, is the direct means of saving life. The circumstances demanding its use are such as to admit of no delay—no opportunity, perhaps, of sending to an instrument-maker or borrowing of a neighbor-physician. Especially is this the case in country practice, and it would not be saying too much that many a case of poisoning is allowed to die which the possession of this instrument and its prompt use might save.

The various stomach-pumps heretofore in use have been more or less complicated, apt to get out of order, and more or less inefficient. We present an improved instrument of this sort to our readers, which was devised by Messrs. Stohlmann & Pfarre, of the firm of Geo. Tiemann & Co., and is represented in the accompanying cut.

The syringe is constructed of hard rubber, is of the capacity of half a pint, and is provided with the ordi-

nary stomach-catheter, which is attached to its nozzle by a bayonet-catch. The nozzle is separated from the chamber by means of a perforated diaphragm, against which rests the base of a conical plug-valve. The piston-rod is perforated to communicate with a nozzle at right angles with it, and just below the handle. This shoulder is supplied also with a conical plug-



valve, the apex of which is directed towards the piston. To this second nozzle or shoulder is attached, by the bayonet-catch, an india-rubber tube, the distal extremity of which is provided with a fenestrated cup-shaped weight.

The arrangement and construction of the pump is such that by a working of the piston the fluid is made to pass through the stomach-catheter, thence through the tubular piston, and finally through the rubber tube into the bowl. The current can be made to pass only in one direction, and this is, after all, sufficient, and can be employed to pump fluids into the stomach as well as out of it. The former operation is done by merely shifting the relative positions of the stomach-catheter and rubber tube. The former is attached to the piston-nozzle and the latter to the nozzle proper. A bowl, with the injection, receives the cup-shaped extremity of the rubber tube, and the current through the instrument, although always the same, is thus practically reversed.

The instrument is exceedingly simple, not liable to get out of order, and can be used at a moment's notice with as much ease and efficiency as any ordinary hard-rubber syringe.

AN INSTRUMENT FOR THROWING SPRAY INTO THE MIDDLE EAR.

By CHARLES E. HACKLEY, M.D.,

SURGEON TO THE NEW YORK EYE AND EAR INFIRMARY, ETC., ETC.

Since the discovery of the possibility of making applications to the middle ear through the Eustachian catheter, many aurists have resorted to this method of medication, and many different appliances have been devised for its accomplishment.

About six years ago I had a nebulizing apparatus made on the plan of Richardson's, but with a long nozzle in the shape of an Eustachian catheter, the bottle holding the liquid to be nebulized being very small. It was hoped that the spray produced would be forced into the middle ear; but I was never able to convince myself that this really occurred.

On the other hand, it was a matter of daily observation that the sudden impulse given by Politzer's method of inflating the ear, forced air through the Eustachian tube, and when the membrana tympani was ruptured, even through the external meatus.

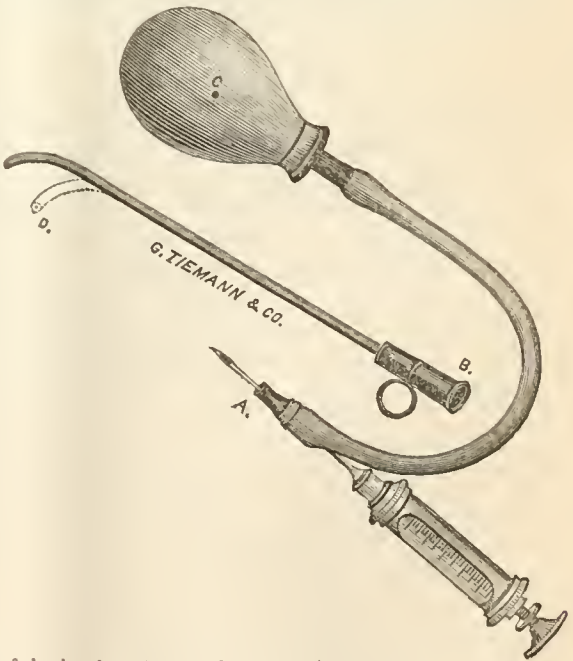
Here was a hint on which Mr. Bishop, of London, acted, and devised his nebulizer for the Eustachian tube, which is figured in the translation of "Tröltsch on the Ear." The translator remarks, "It is a very awkward instrument;" and adds, "I prefer one made similarly to Richardson's local anæsthesia apparatus. The tube is like that of a Eustachian catheter, and is introduced the same way."

An objection which might be made against Mr. Bishop's apparatus, in this country at least, is its cost.

For the past year I have been using his principle, differently applied. As the same principle may be used for throwing nebulized fluids into the posterior nares, larynx, etc., when only a momentary application is desired, a description of its application may be interesting to those economically inclined.

My apparatus consists of an air-bag, an Eustachian catheter, with a hard-rubber nozzle to fit in its mouth, a piece of rubber tubing, and a hypodermic syringe—all of which articles are in the possession of most surgeons paying any attention to ear diseases.

The nozzle of the air-bag is inserted into one end of the rubber tube, the tip to fit in the catheter being placed in the other end. The hypodermic syringe is filled with the liquid to be employed, then its point passed through the tube and out through the calibre



of the hard-rubber tip for the catheter, as shown in the cut.

The mouth of the Eustachian catheter B being fitted

over the hard-rubber tip A, and held there, if sudden pressure is made on the air-bag, while the piston of the syringe is forced home, the liquid will be thrown through the catheter in the form of spray.

In using this apparatus for the treatment of ear diseases, the catheter should be carefully introduced through the nose, and placed in position. Then, while the diagnostic tube is placed in the ear, the hard-rubber tip should be inserted in the catheter, and *air alone* forced through to determine whether the catheter be properly in position. If found to be so, the piston may be pressed on at the same time that air is forced through. During this experiment the catheter may be held in position by clamps for that purpose, or may be held by the fore and middle fingers of the left hand, while the thumb of the same hand presses on the piston, the other hand being used to work the air-bag.

It is well to have a small round opening made in the air-bag, as at C; while the air is being forced out this may be closed by the finger, which then being removed, the bag refills more readily than it would otherwise.

In passing, it may not be amiss to note a hint taken from Dr. Robert Watts, viz., the use of the ordinary air-bag instead of the double bulb for the nebulizer, when we do not desire a long-continued current. The fineness of the spray being in proportion to the pressure, other things being equal we may in this way obtain a much finer spray than by the ordinary double bulb apparatus.

In making applications to the posterior nares or larynx, etc., a catheter having the nozzle more curved, as at D, may be employed. This extra curve may readily be given by holding the instrument in hot water, and then bending it.

The bulb and tube of Davidson's syringe may replace the ordinary air-bag and the rubber tube. A very fair spray for a momentary application may be obtained by inserting the nozzle of the hypodermic syringe through the tube of Davidson's syringe, into the calibre of the nozzle, and compressing the bulb while driving home the piston. Davidson's syringe employed for this purpose should have a *large bulb*.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from August 19th, 1871, to September 4th, 1871, inclusive.

Mills, Madison, Surgeon.—By S. O. 340, War Department, A. G. O., August 31, 1871, leave of absence extended 30 days.

Moore, Jno., Surgeon.—By S. O. 183, Headquarters Department of the East, c. s., granted leave of absence for 20 days.

Clements, B. A., Surgeon.—By S. O. 172, Department of Texas, August 23, 1871, granted leave of absence for 30 days, with permission to apply for an extension of 15 days.

Alden, C. H., Surgeon.—By S. O. 91, Headquarters Department of the Lakes, c. s., granted leave of absence for 30 days.

Winne, Chas. K., Assistant Surgeon.—By S. O. 236, War Department, A. G. O., August 22, 1871, to report on the 1st of September prox., to the Comd't General Department of Dakota for orders.

Koerper, E. A., Assistant Surgeon.—By S. O. 171, c. s., Department of Texas, granted leave of absence for 30 days, with permission to apply for an extension of 30 days.

Girard, A. C., Assistant Surgeon.—By S.O. 171, Department of Texas, August 22, 1871, assigned to duty at Ringgold B'ks, Texas.

Powell, R., Assistant Surgeon.—By S. O. 317, War Department, A. G. O., August 16, 1871, relieved from duty in the Department of the Columbia, and ordered to proceed to New York City, reporting by letter, upon arrival there, to the Surgeon-General.

Wilson, Wm. J., Assistant Surgeon.—By S. O. 339, Headquarters of the Army, A. G. O., August 30, 1871, granted leave of absence for 3 months.

Delany, A., Assistant Surgeon.—By S. O. 103, Headquarters District of N. M., August 21, 1871, to proceed at once to Fort Bayard, N. M., for duty at that post.

Harvey, P. F., Assistant Surgeon.—By S. O. 50, Headquarters Mil. Div. of the South, c. s., leave of absence extended 30 days.

Medical Items and News.

A New Medical Baronet.—The honor of baronetcy has been conferred on the celebrated English pathologist and surgeon, James Paget.

Death of a French Anatomist and Physiologist.—Dr. Liegeois, Vice-Professor at the Paris Faculty, and author of well-known works on anatomy and physiology, recently died suddenly at Paris.

A Meteorite.—The recent fall of a twelve-pound meteoric stone, at Searsport, Mass., was preceded by an explosion like the report of a heavy gun, followed by a rushing sound like the escape of steam from a boiler. The sound seemed to come from the south and to move northwardly. The stone dropped with such force that it sank two feet into the ground, but was seen to fall, and was quickly dug out. It was quite hot and broken, however, and could only be removed in pieces. Its color was gray, except the outside, which was black, and showed plainly the effect of melting heat.—*Med. and Surg. Journal.*

Medical Dept. of University of New York.—Dr. Erskine Mason, formerly Demonstrator of Anatomy in the College of Physicians and Surgeons, has been appointed Adjunct Professor of Surgery in the University Medical College.

Presbyterian Hospital, Philadelphia.—John A. Brown, of Philadelphia, has given $300,000 to this projected Institution, stipulating that it shall be used exclusively for the support of the hospital, and not for the erection of buildings. Prof. Saunders gave the land and buildings.

A New Insane Asylum.—Ground for the new Insane Asylum, in Buffalo, N. Y., was broken August 22d. The building will be 1,900 feet long, and its grounds cover an area of 217 acres.

Minutes of the Twenty-second Meeting of the American Medical Association, held in San Francisco, May 2, 3, 4 and 5, 1871. We have received an official copy of the above from the Permanent Secretary, Dr. W. B. Atkinson, of Philadelphia, who is also the publisher. The record is an abstract of the proceedings, and contains copies of all the resolutions, etc., passed at the last meeting of the Association. So far as it goes it is complete and authoritative, but we believe that the value of the record would have been increased by full reports of the various committees and of the discussions upon the different topics presented, more especially the one upon the woman question. The pamphlet, which comprises 43 printed pages, is sold at 25 cents per copy.

British Medical Association.—The thirty-ninth annual meeting of this Association was held in Plymouth, England, August 8th, 9th, 10th, and 11th, 1871. The Hastings Medal for 1870 was presented to Dr. J. M. Fothergill, of Leeds. Birmingham is to be the next place of meeting, in 1872, and Alfred Baker is the President-elect.

St. Francis' Hospital, Jersey City.—Owing to the large increase in the number of patients at St. Francis' Hospital, it has been deemed expedient to reorganize the medical staff by increasing the number to eight. The staff, as reorganized, consists of the following gentlemen: Surgeons—Drs. Varick, Prendergast, Reeve, and McGil. Physicians—Drs. Lutkins, Culver, Morris, and Mitchell. The first regular meeting of the new staff was held July 28th, to perfect their organization and select officers for the ensuing year. Dr. Prendergast was chosen President, and Dr. McGill, Secretary.

Dr. R. W. Taylor has been appointed Clinical Professor of Diseases of the Skin at the Woman's Medical College.

Bellevue Hospital, New York.—The new amphitheatre, or lecture-room, connected with Bellevue Hospital is now completed, and will be formally opened by the Medical Board of the Hospital, September 15th. The amphitheatre is a large and commodious room, capable of seating 800 students, and the seats are very comfortably arranged. The ventilation is excellent, and the light is reflected from the rotunda which encircles the ceiling. The lecture-room is the largest and most complete in this country, if not in the world.

The following gentlemen compose the Medical Board: *President*—Dr. Isaac E. Taylor. *Consulting Physician*—Dr. John T. Metcalfe. *Consulting Surgeon*—Dr. Wm. H. Van Buren. *Visiting Physicians*—Drs. Alonzo Clark, Benjamin W. McCready, Isaac E. Taylor, Fordyce Barker, Alfred L. Loomis, Austin Flint, Austin Flint, Jr., William T. Lusk, and Edward G. Janeway. *Visiting Surgeons*—James R. Wood, Lewis A. Sayre, Stephen Smith, Alexander B. Mott, J. W. S. Gouley, Frank H. Hamilton, John J. Crane, Henry B. Sands, and Thos. M. Markoe. *Examining Physician*—Dr. Wm. P. Ackerman. *House Physicians*—Drs. T. K. Cruse, S. T. St John, and W. F. Alexander. *Senior Assistants*—Drs. D. C. Lee, S. M. De Varona, and W. G. Wylie. *House Surgeons*—Drs. W. D. Schuyler, F. G. Metcalfe, and W. J. Miliken. *Senior Assistants*—Drs. J. A. McCreery, J. A. McBride, and E. W. Bennet. *Ambulance Surgeons*—Drs. Baily and Harrington.

Bellevue Hospital Medical College.—The Alumni Association of this College will publish during the year, under the auspices of the Faculty, the first Decennial Catalogue of the Alumni of the College. Alumni are requested to send to the Secretary, Prof. A. Flint, Jr., their names, addresses, public positions held, etc.

The New St. Thomas' Hospital, of London, was formally opened September 5th, 1871.

The Introduction of Chloroform into Anæsthetics.—In a pamphlet issued by Mr. George Waldie, of Linlithgow, "The true Story of the Introduction of Chloroform into Anæsthetics," he discusses with some warmth the question of the introduction of chloroform into anæsthetics, maintaining that justice was not done to his brother, Mr. David Waldie, by the late Sir James Y. Simpson, in his account of the discovery of its value as an agent for the relief of pain.

Vinca Major.—Mr. Spencer Wells finds that in some cases of menorrhagic bleeding a preparation of *Vinca major*, the well-known greater periwinkle of English shrubberies, is preferable to lime, gallic acid, or ergot. He prescribes it according to the formula given by Mr. Squire, viz., an infusion of 2 ounces of dried herb to 20 ounces of boiling water, strained when cold.

Cundurango.—We believe that a fresh supply of this bark has been received. A physician of this city who recently applied for four ounces, was furnished with it, the bill being headed Bliss, Keen & Co., and the amount charged, $50.00. The above firm are said to have established a "*laboratory*" in New York.

Cholera.—There is an increase in the amount of this disease in the English ports, cases having been recently reported in Liverpool and London. *The Lancet*, in reviewing the numerous articles concerning prophylaxis and treatment, which have made their appearance in the medical journals, remarks, that "the chief difference of opinion in the profession has reference to the treatment of the diarrhœal stage of the disease. Everybody is agreed that when collapse has set in the recovery of the patient is likely to be furthered not by active medical treatment, but by gentle and unirritating means for restoring the lost fluid of the tissues and of the blood, by giving saline and other drinks, never forgetting the inestimable preciousness of cold water, with or without the addition of a few grains of soda or carbonate of ammonia, as suggested by Dr. Murray in a paper read recently before the British Medical Association. Dr. Murray also recommends, in the treatment during this stage of the disease, in protracted cases, the use of Liebig's extract of meat, and of hot saline enemata, given after each motion. The use of astringents in this stage of cholera would be absurd, and the use of opium more than absurd. Very much the same words would characterize the use of alcohol." Dr. Murray says that a "cholera pill" to be used in the diarrhœa of the first stage, which is in very general use in India, is composed of one grain of opium, two of black pepper, and three of assafœtida, some physicians varying it by the substitution of capsicum for black pepper, and the addition of camphor.

The disease continues to spread in Germany, four cases being reported at Berlin, of which two were fatal. The sum of the epidemic in St. Petersburg, up to the 26th of July is:

Cases.	Recoveries.	Deaths.
6,971	3,692	2,876

In Paris, during the week ending August 18, 31 deaths from cholerine and 1 from cholera are reported.

Miss Putnam.—"Miss Putnam," says a Paris paper, "the young American who has for some years been following the course in l'Ecole de Médecine, submitted her Graduating Thesis to the Faculty. It was read in the large Lecture-room of the College, before a numerous audience, and was received with warm commendation. The President of the Board of Examiners found it deserving of the highest note, '*extrêmement satisfait.*'"

This mark is rarely given for a thesis. Miss Putnam has also received the highest mark at each of her five examinations.

She was ready for graduation a year ago, but the war broke up the schools, and she has devoted the year to work in the hospitals. She is the first woman who obtained admission to L'Ecole de Médecine, but not the first who has graduated, as Miss Garrett took a year's course, and received her degree a year or more ago. She writes that one of the dedications of her thesis was as follows: "To the professor, whose name I do not know, who alone voted in favor of my admission to the Ecole, thus protesting against the prejudice that would exclude

women from superior studies." One of the Professors on the board took up the dedication, read it aloud to the audience, and then defended himself from the accusation. "He had never voted, he had no such prejudice, he did not believe that it existed in the faculty, &c.," and he considered the claim for right to participate in the superior studies a most legitimate demand.

Miss Putnam writes, "I confess I should not be sorry to have that part of the séance stereotyped for the benefit of New York schools of Medicine."

The Discoverer of Silver Islet.—Mr. Joseph Wharton, of Philadelphia, at a recent meeting of the Academy of Natural Sciences of Philadelphia, remarked that a letter received from Thomas Macfarlane, the discoverer of Silver Islet, in Lake Superior, near the north shore, states that ores to the value of $500,000 have been taken out. A coffer-dam has been built around the islet, at a cost of $60,000, to increase the area for working. The ore is worth about $1,500 per ton.

Defects in the English Social and Economic Condition.—Professor Faucett observes (*The Doctor*), "Assume that there are 1,000 poor children, and that 500 of these die before the age of five; whereas, if they were as well cared for as the children of more wealthy parents, only 200 of them would die before this age; the death, therefore, of 300 is to be traced to defects in our social and economic condition."

The Catacombs of Paris.—These remarkable Catacombs extend over at least a tenth part of the entire city, and have an extent of about three millions of square yards. The distance from the surface of the ground to the bottom of the Catacombs is about seventy English feet. Six millions of skeletons people this wonderful city of the dead—three times as many as crowd the busy streets above, and every year the number increases. Once in every five years the "common graves" in the great cemeteries of Père la Chaise, Montmartre, and Mont Parnasse are opened, and the remains of the unknown and nameless occupants are transferred to the Catacombs.

Salivation Consequent upon Artificial Teeth.—Dr. Charles E. Buckingham (*Boston Med. and Surg. Journ.*), in answer to Dr. O'Connell's question, asserts that he has seen several cases such as he describes, where the teeth were upon *red rubber* plate. While writing, he can recall three such cases seen within a twelvemonth.

Insanity.—John P. Gray, M.D. (in a paper on "Insanity: Its Dependence on Physical Disease," read before the Medical Society of the State of New York), asserts that it may be safely assumed that experience has given the subjoined fundamental starting-points:—

1st. Disease of any part of the organism may be the pathologic cause of insanity. 2d. In such cases insanity is not manifested until the brain is actually involved. 3d. Disease of the brain or its membranes may be the primary, exciting cause of insanity, and other parts of the organism subsequently become affected. 4th. Insanity more frequently has its primary origin in pathologic states outside the brain than in primary diseases of the brain. 5th. There are physical symptoms and signs of brain-diseases which experience has enabled us to recognize as pathognostic of certain brain-changes, by knowledge of which we are able to anticipate and understand the progress of cerebral diseases.

Among the most important practical considerations overlooked in insanity is the fact that organic changes in the brain are likely to occur very soon after the first morbid functional action is set up. To the lack of recognition of this fact must be attributed the vast multitude of chronic cases. Any bodily condition which disturbs the mind is too important to be overlooked or ignored. Prolonged wakefulness, though it may not apparently disturb the mind, indicates a condition of the brain which is not natural, and which should be inquired into. When this is associated with depression, groundless apprehensions, suspicions, and uneasiness, the case is one of grave import, and should command medical attention. Such a condition is significant of physical disturbance, and foreshadows insanity.

Criminal Abortion.—Ely Van De Warker, M.D., Syracuse, N. Y. (*Jour. Gynæcological Society of Boston*), says that the practitioner ought to bear in mind that instrumental abortion, procured with malicious intent, presents almost always features of malignancy. It is isolated by these features from other accidents of the puerperal state. The innocent abortion is preluded by nature with organic changes which fit the womb for the expulsion of its contents. In the forced abortion demands are made upon a healthy organ for it to instantly violate the laws of its physiological action. This he believes to be the key to the difference between the two cases.

Dr. Andrew Van Dyck, of Oswego, died at Oswego, August 31, 1871. He was born at Kinderhook, Jan. 27th, 1801, and was a son of Dr. Henry Van Dyck, who practised medicine and surgery nearly fifty years in the town of Kinderhook. He graduated at the College of Physicians and Surgeons of New York, March 25th, 1822, and immediately thereafter commenced practice at Kinderhook in partnership with his father. He removed to Canada in the winter of 1827—his diploma bearing date "Toronto, January 2d, 1827." He remained in Canada until 1838, when, on account of the political troubles there, he returned to Kinderhook and resumed practice with his father. He returned to Oswego in the fall of 1843. In 1863 he was commissioned by Governor Seymour a member of the Voluntary Aid Corps of Surgeons. He was appointed Collector of the Port of Oswego by Abraham Lincoln, on the 16th of January, 1865, for four years, and at the expiration of his term was reappointed by the same President. He was afterwards renominated to the office by Andrew Johnson.

New Publications.

Putnam's Handy Book Series. Stimulants and Narcotics, Medically, Philosophically, and Morally Considered. By Geo. M. Beard, M.D. New York: G. P. Putnam & Sons. 1871.

Cancer, its Classification and Remedies. By J. W. Bright, M.D. Phila.: S. W. Butler, M.D. 1871.

Essay on Growths in the Larynx, with Reports, and an Analysis of One Hundred Consecutive Cases treated by the Author, etc., etc. By Morell Mackenzie, M.D., Lond., M.R.C.P., Physician to Hospital for Diseases of the Throat, and to the Royal Society of Musicians, etc., London. Phila.: Lindsay & Blakiston. 1871.

A Treatise on Localized Electrization and its Application to Pathology and Therapeutics. By Dr. D. B. Duchenne. Translated from Third Edition of the Original by Herbert Tibbitts, M.D., London. Phila.: Lindsay & Blakiston. 1871.

Original Lectures.

A CLINICAL LECTURE ON THE DIAGNOSIS AND SYMPTOMATOLOGY OF CORPOREAL ENDOMETRITIS (*alias* "*Menorrhagia*").

By Prof. ALEX. J. C. SKENE, M.D.,

OF THE LONG ISLAND COLLEGE HOSPITAL.

(Reported by Edward Seaman Dunker, M.D.)

Gentlemen:—When you engage in the every-day duties of active professional life, you will be constantly brought in contact with cases of obscure uterine disease, and I am sure I do not magnify my office when I say to you that in no department of practical medicine will your diagnostic skill be more severely taxed; for the reason, perhaps, that in no department has the pathology of disease, for the last quarter of a century or more, been more unsettled.

I am glad to be able to say to you, however, that through the instrumentality of earnest workers in this department of study, both in Europe and in this country, the confusion and obscurity of uterine diseases have given way to more clearly defined and rational views of the pathology of these affections.

I ask you, therefore, to study, not so much your older text-books on these subjects, as the cases I shall present you from time to time in actual practice, and such as you will encounter hereafter in your own fields of observation. Study these in the light of the more rational pathology of *to-day*, and you cannot fail to have clearer and more practical views than you can possibly obtain from the exclusive study of text-books.

With the view of illustrating a very common form of difficulty,—yet one, I fear, often overlooked, and therefore badly managed,—I have selected this patient from my Hospital wards as a text for my lecture this hour. In the history of the case you will encounter a train of symptoms with which the busy practitioner is made very familiar; and yet, strange as it may appear, these symptoms have received the widest latitude of pathological interpretation.

First, let me attract your attention to the *general condition* of the patient before you. You observe that she has the appearance of a good constitution, and she tells us that she has had good health until lately. She is twenty-eight years of age, and has had two healthy children, the youngest being now a year and a half old. It has not been nursing the mother for the last nine or ten months. About six months ago, while menstruating, she contracted a severe cold, and, as a result, there was an immediate suspension of the menstrual flow; and her ill-health, she tells us, dates from that time. Since then her menstruation has been somewhat irregular as to time, and, when it does occur, the flow is invariably too free, and lasts longer than formerly when her health was good. She also complains of a dull, aching pain about the sacrum, with distressful bearing down of the whole pelvic contents,—womb, bladder, and rectum.

This is, briefly, the history which the patient gives us. There is nothing unusual in it; the history of one is the history of scores of such cases encountered by the general practitioner. We come, then, directly to the practical question, What is the nature of this ailment, and how can it be remedied? We shall only, at the present time, answer the first query by affirming our belief, after a careful analysis of the case, that the trouble is wholly local. In years gone by, doctors, following the standard authorities of the time, would have been content to base their diagnosis on the facts already obtained, and would have called this a case of *menorrhagia*, and treated it accordingly. Indeed, you will be somewhat interested, in reading modern text-books even, to find that chapters are given to menorrhagia, its diagnosis and treatment. But you can at once see that this nomenclature leads to error, by confounding *symptoms* with *disease*—an error which is, I fear, of frequent occurrence.

In other departments of medicine, such blunders in the nomenclature of disease would very surely provoke laughter. You would hardly excuse your professor of practice for diagnosticating a case of lung disease as one of "expectoration;" and yet his error, in my judgment, would not be more ludicrous than it is to discuss the subject of menorrhagia as a *distinct affection*. The excessive menstruation is but the result of some condition, local or general, which, when found, is the disease of which menorrhagia is one of the symptoms.

Taking this view of the matter, then, we have not been content, as you will see, to rely on the general symptoms already detailed by the patient. She has stated facts in the history of the case, and given us subjective symptoms. It has been our duty to extend the investigation, and ascertain, if possible, the morbid condition of which menorrhagia is the symptom. Hence we made a careful local examination; and I now state to you the result thereof.

On making a digital examination, with the patient standing erect, we found the uterus a little lower than it ought to be, while it still occupied its normal axis; in other words, we had prolapsus in the first or slightest degree. By pressing the uterus downwards, with the left hand upon the abdomen, and getting behind the fundus so as to crowd it forward, we got the impression that the organ was increased in size. Grasping the organ between the forefinger of each hand we detected tenderness on pressure. This was most marked over the body of the organ, though there was slight tenderness in the cervix. On exposing the neck of the uterus with a speculum, we observed that it was slightly enlarged, and that there was hyperæmia or congestion affecting more particularly the mucous membrane. There was also a slight leucorrhœal discharge from the cavity of the cervix. The os uteri was more open than normal, and the lips immediately around it denuded of epithelium. In short, we had the signs of what is called, in some of your books, "*endo-cervicitis*." (We will avoid this Græco-Latin bastard, and substitute, for the present, the phrase "cervical endometritis.") A small flexible uterine sound was then carried up to the fundus uteri, by which we detected: first, that the cavity was considerably enlarged, as it measured altogether over three inches and a half; and also that there was tenderness on pressure, most marked at the internal os, or junction of the body and cervix. We noticed, also, that the mucous membrane bled more easily when touched by the sound than it would in a healthy condition. No other evidence of disease in the pelvic organs could be obtained on a careful examination, except that the bladder and a portion of the rectum were dragged down a little with the slightly prolapsed uterus. Those of you who are advanced in your surgical studies will have noticed that many of the signs we have described are such as you would expect to find in inflammatory affections; and I may state to you, just here, that from the data before us we are warranted in setting this down as a case of *corporeal endometritis*.

But allow me to consider a little more in detail the signs and symptoms on which we base our diagnosis.

This is the more necessary because I fear you will find your text-books rather obscure on the diagnosis of endometritis. Some writers on this subject do not even allude to the rules laid down for the diagnosis of inflammation involving other organs of the body. The indications of inflammation as given in surgical works are, as you know, derangement of function, increased heat, pain, tenderness, swelling, and general constitutional disturbance. Now let us consider, for a moment, how far these general indications of inflammation are available in the diagnosis of endometritis.

Functional Derangement.—Every one versed in physiology is familiar with the fact that an inflamed organ cannot perform its function normally; and the uterus is certainly no exception to the general law. Thus, congestion of the mucous membrane of the cervix gives rise to leucorrhœa; and hyperæmia of the membrane of the uterine *cavity*, in obedience to the general law of inflammation above stated, causes derangement of menstruation. The catamenial discharge may be profuse, scanty, irregular, or painful; or the menstrual function may be suppressed altogether. Now, when either of these derangements is present, and we can find no constitutional cause to account for it, we may reasonably infer that the mucous membrane is at fault. On first thought it may appear strange to you that opposite conditions, like menorrhagia and amenorrhœa, should arise from apparently the same condition, viz., congestion of the uterine mucous membrane; but this occurs in accordance with the same law which in one stage of disease causes dryness, and in another, profuse secretion from the bronchial mucous membrane. Now, having emphasized the fact that hyperæmia of the uterine mucous membrane causes derangement of menstruation, shall we at once leap to the conclusion that derangement of menstruation always indicates a hyperæmic state of the uterine membrane? By no means. You will bear in mind that certain *general* conditions of the system, such as anæmia, hydræmia, and plethora, may affect menstruation while the uterus remains normal; but such causes could not well be overlooked, or mistaken for a *local trouble*. Again, cardiac and hepatic diseases affect menstruation, but they do so by causing passive hyperæmia of the mucous membrane, which is then but a link in the chain of pathological sequences; hence, in these cases, the derangement of menstruation holds good as a symptom of local trouble.

One point more in this connection. From the fact that menstruation is, to some extent, under the influence of ovulation, it is believed by many that derangements of menstruation frequently arise from disease of the ovaries. This is doubtless true to a limited extent; but observe, it does not materially affect the value of the symptoms under consideration. In the first place, ovarian diseases of an inflammatory character are rare; whereas menstrual derangements without ovarian disease are very common. In the second place, diseases of the ovaries, such as cystic degeneration, etc., occur while the menstrual function continues normal. Again, in pelvic peritonitis and cellulitis, where the ovaries suffer to a great extent, menstruation is often normal, except that there is pain,—accounted for by the extra-uterine disease.

Perhaps the menstrual derangement most frequently observed in endometritis is that which we find in this case, namely, menorrhagia and irregular catamenia.

2. *Increased Heat.*—This, doubtless, is a most valuable sign of endometritis, but it has heretofore been overlooked as a diagnostic sign,—no doubt from the difficulty of obtaining it. In some cases patients complain of abnormal heat in the pelvis; but, of course, nothing definite can be learned from that. I have carefully searched recent medical periodicals for information on this subject, hoping that I might find something on the use of the thermometer in the diagnosis of uterine disease; but I am not aware that the instrument has ever been used for this purpose, except in this hospital. I have tried the uterine thermometer which I here show you, but my observations have been thus far so limited that I am not yet prepared to discuss the results obtained. I am inclined to the opinion, however, that we may derive valuable information from its use.

3. *Pain.*—The pain complained of by those suffering from uterine disease, you will bear in mind, does not indicate with certainty the *exact location* of the trouble. It is not of much value, therefore, in the diagnosis of endometritis. The peculiar backache, and the sense of fulness or heaviness in the pelvis, are only valuable symptoms when taken in connection with the more positive signs.

4. *Tenderness.*—This is given as a sign of metritis by Dr. Bennet and those who copy him, and is by them regarded as quite diagnostic. But his mode of detecting it is obviously imperfect. He fails in sufficiently localizing the tenderness. All that can be learned from his mode of examination is, that there is "tenderness of the uterus;" but whether due to trouble of the *body*, *cervix*, or *cavity* is not clearly pointed out. I consider with Dr. Bennet that tenderness is one of the most reliable signs of endometritis, and, by touch and the uterine sound, we can detect the exact location of the tenderness as certainly as in the examination of any organ of the body. By grasping, for instance, the uterus between the finger in the vagina and the hand on the abdomen (as we do in the case before you), tenderness can readily be detected, and at the same time, by making pressure laterally, ovarian tenderness may be easily excluded. Having made sure of the presence of tenderness—a most important point—we next proceed to ascertain whether it is located in the mucous membrane of the uterine cavity, by using the uterine sound through the speculum. This will require care, tact, and some practice in the use of the instrument, in order to make the examination accurate and satisfactory, especially where the cervix is tender also. The sound should be passed, if possible, into the cavity of the body without causing pain in the cervix, and then, by making pressure on the membrane at various points, its sensitiveness can be easily tested. In cases where there is tenderness of the membrane of the cavity, and not of the cervix, the examination is more easy and satisfactory. I have noticed in a great many examinations of cases of endometritis that the tenderness is most marked at the os internum.

5. *Swelling.*—It is a fact, fully confirmed by observation, that most of the changes in the size of the uterus are due to changes in its *cavity*; and it is equally true that swelling of the mucous membrane from congestion, or inflammation, produces enlargement of the *whole organ*. Hence, increased size of the uterus, not accounted for by other lesions, is a most valuable sign of endometritis. Enlargement of the cavity is detected by means of a sound passed through the speculum. The best instrument for this purpose is the one I show you here. As you see, it is an ordinary uterine sound or probe, made of pure flexible copper wire. A canula made of a piece of gum-elastic catheter, and half the length of the sound, is slipped over it like a sheath, and drawn back towards the handle. The sound being carried up to the fundus uteri, this canula is slipped down till the ivory ferule rests against the cervix. I then withdraw, as you see, both probe and canula, retaining the latter in position with my forefinger; and now you can read off the depth of this patient's womb, measured

along the sound from its point to the ferule of the canula. The importance of making these careful "soundings" can scarcely be overestimated.

6. *Symptoms manifested by the General System.*—You may doubt our ability to make a distinction between the constitutional symptoms arising from endometritis and those occasioned by other affections of the uterus; still I believe that, in many cases, a difference can be observed. When the cavity of the *body* is diseased, the digestive organs are more frequently deranged than when the cervix alone is involved. Capricious appetite, nausea, constipation, and flatulence are the most prominent constitutional troubles. The mammary glands are often sympathetically affected. They frequently become enlarged, and the areola takes on a darker color. All the conditions which constitute what is known as "*spurious pregnancy*" come from corporeal endometritis; rarely, if ever, from any other inflammatory trouble of the uterus. Now it is possible that all these conditions may come from endometritis limited to the cervix, or simple leucorrhœa; but such results are rare compared with the frequency with which they accompany corporeal endometritis. This accords with other facts in symptomatology which are well known and recognized. We know, for instance, that nausea and vomiting are rarely, if ever, produced by a vaginitis however severe; but slight trouble of the body of the uterus, as a rule, gives rise to more or less gastric derangement. The effects of corporeal endometritis on the nervous system are not diagnostic; because the same disturbances may, and do, arise from disease of the cervix.

Of all the signs of endometritis, however, the appearance of the *membrane* would be the most certain if we could only see it. Could we only examine the cavity of the uterus by means of the endoscope, our knowledge of the pathology of this affection, and our diagnostic ability, would of course be much more perfect. The endoscope has been used to examine the uterine cavity, but the results, so far, have not been as satisfactory as desired. I have reason to hope, however, that the time will come when we shall be able to throw light into the uterus, and thereby see the exact pathological conditions, as we now do in other hidden cavities.

One more valuable aid to diagnosis I may mention, and that is, the *early clinical history*; by which we often learn the influences to which the patient has been exposed, and from which we may trace the probability of endometritis. The natural history of disease is nowhere of more importance than in the study of uterine ailments.

There remains another important subject connected with what we have been considering: I allude to the differential diagnosis of *active* and *passive* hyperæmia of the mucous membrane of the uterine cavity. But I shall not occupy your time, at present, in discussing this matter, because it will frequently come up hereafter in connection with our clinical course. I may briefly state, however, that you will find the vast majority of cases of passive hyperæmia of the uterus due either to imperfect involution, or else to conditions which obstruct the portal or abdominal circulation; such as renal, cardiac, or hepatic diseases, or fecal accumulation in the large intestine. The appearance of that part of the uterus seen through the speculum will greatly aid you in your diagnosis; the one case presenting the bright color of arterial blood, and the other the dark venous hue of passive congestion.

I have thus, gentlemen, briefly presented, in connection with the case examined in your presence, some of the leading points belonging to the symptomatology and diagnosis of corporeal endometritis. These will be found to include:—1. Derangement of functions; 2. Increased heat; 3. Pain; 4. Tenderness; 5. Swelling; 6. Constitutional symptoms; 7. The presence of cervical disease; 8. Clinical history. Let me urge you, in conclusion, to carry the subject with you to the bedside of your patients; give it your earnest and untiring study; for you may rest assured, that such clinical observations will stand you vastly better than the vague opinions and misleading ideas which you will develop by theorizing on the subject.

Original Communications.

SPINAL IRRITATION.

By ALEX. HUTCHINS, A.M., M.D.,

BROOKLYN, N. Y.

Eliza S., age 16, was in a state of well-nigh complete convalescence from a severe attack of pneumonia, when, during the storm on the night of Jan. 1, the rain leaked through the wall, wetting the bed in which she lay. She manifested no especial symptoms of having suffered from the exposure until the evening of the 2d, when she complained of pain in the extremity of the great toe of the right foot. She had noticed the sensation known as formication during the day, but the pain was severe enough during the night to prevent her from sleeping, and though various domestic applications were made to the part, the pain, instead of being relieved, was intensified in the morning.

The history of the case, for the two weeks following the attack, was appalling. It is scarcely possible to render in words any intelligible account of the girl's sufferings. The pain was, at first, limited to the great toe, confined almost exclusively to the extremity—all possible efforts to divert attention during manipulation failing to demonstrate anything but moderate sensitiveness in any other part of the toe, and even that referable to the extremity, while the slightest pressure on that, whether of the finger of the attendant or patient, or of the covering, gave unmistakable evidence of causing the most intense and excruciating agony. The pain, continuing to increase in intensity, was limited to this part until the 6th, when a similar pain, preceded by formication, was manifested in the heel of the same foot, the intermediate parts submitting to pressure without causing any uneasiness. On the 10th pain was developed apparently in the tendon of the *tibialis anticus*, and from that time any attempt at extending the foot was attended by the most aggravated suffering. On the 14th pain was developed in the tendon of the *semi-tendinosus*, the leg gradually flexing toward the thigh till it remained at about 120°, capable of extension, but not submitting to it from the intensity of suffering caused by the forced movement. Simultaneously with this was perceived a pain deep-seated in the thigh, in its middle anterior and inner portion. Thus the girl was suffering in all these points incessant excruciating pain, during sleepless nights and days, worn and exhausted, unable to move herself or to be moved, from the aggravation of suffering caused by each attempt.

The points in the case were, the *pain* itself:—the only symptom of disorder from the commencement and during the progress of the disease; the constitutional disturbance being in nowise proportionate to the intensity of the suffering: the evidences of exhaustion traceable to no other cause than the continued misery and long deprivation of sleep:—the *progress*; preceded by formication, and this speedily followed by the pain

which she described as the same in each part attacked: —the *intensity;* evidenced by the haggard countenance, the wild expression of her sunken eye, the dilated nostril, the wrinkled chin drawing up the contracted, trembling lip, the incessant shrieking of the patient day and night:—the *persistence;* in nowise paroxysmal, and scarcely admitting of being described as intermittent, except so far as it was aggravated by necessary movement of the limb, and by pressure, of whatever sort:—its *limitations;* being confined exclusively to the parts above detailed, the other and intermediate portions of the limb, as well as the remainder of the body, being normal in sensibility, temperature, and capacity of motion.

During this period of fifteen days the treatment was confined exclusively to the internal and external exhibition of various anodynes and anæsthetics, with a view to relieving the pain and procuring sleep; all, however, failed to secure the desired end, except when, occasionally, the excess of medication would cause a temporary stupor.

On the 15th day of the disorder a symptom was detected which developed the probable nature of the case, and decided a new plan of treatment. Her spine had been examined at the onset of the disease, and several times after, but no evidence of any affection of the part was discovered: on this day, however, she complained of a sense of constriction about the pelvis, and this having been considered a pathognomonic symptom of irritation of the spinal cord, in its lower portion, an examination was again made, which resulted in the detection of tenderness (not very marked) over the upper part of the sacrum. She was immediately cupped to twelve ounces, the result being an almost instantaneous relief from the severity of the pain; in a short time she fell asleep, without opiates, and slept for six hours. Upon awaking the improvement was most marked. On the following morning, the 17th, croton oil was ordered to be rubbed in over the sacrum, and a copious vesication was kept up by the irritant for some weeks. Under this treatment, the improvement of her condition was astonishing. Feb. 2d, the pain had entirely ceased, except when pressure was applied to the previously painful parts. She could maintain a standing posture, and was able to touch her toes to the ground—on the 12th her whole foot. On the 18th she had a slight menstrual discharge, the first in three months. On the 1st of March she could straighten her whole limb without uneasiness, and by the 16th was held to be completely restored to health. The only additional treatment consisted in the occasional use of an opiate suppository and an *ad libitum* allowance of port wine and bark, and this was continued from Jan. 25th to 1st of March.

The analysis of this case furnishes evidence, concise and direct enough to amount to a demonstration, that irritation to a definite portion of the spinal cord or its coverings can be the sole cause of intense pain at various points on the surface, which are supplied with nerves emanating from the affected part. The manifestations at the periphery were the symptoms of the disease at the centre. Applying the principles which govern the use of local bleeding and counter-irritation for the relief of congestion and irritation of other internal organs, the instantaneous and ultimately complete relief obtained by the use of these agencies in the case quoted, make it a moral certainty that this protracted persistent pain was due to congestion and irritation of the spinal cord, at a particular portion indicated by moderate tenderness over the region of the affected part, which tenderness did not develop until some time after the commencement of the disease. Granting that this proposition is true, the case proves that the manifestations of the disease may be anomalous and sufficiently erratic to baffle direct inquiry. Given, as a naked datum of possible causes, a certain section of irritated spinal cord, it would be impossible, even by the utmost refinements of anatomical and physiological research, to detail, by *à priori* argument, at what particular point in the periphery the disease would be manifested, unless indeed the *point d'appui* being known at the centre, microscopy will demonstrate the continuity of the individual nerve-fibre to its particular termini in the periphery, or (this continuity being denied, or not proven) physiology will exhibit an accurate statement of the mode by which nervous influence is transmitted.

There being, then, certain limits to our most refined investigations, success in this line of *à priori* argument is to be held in abeyance. The question of most real importance is the inverse of the last. Given, the manifestation at the periphery—in the first place, can it be positively affirmed that there is irritation at the centre; and, in the second place, having decided the irritation to be at the centre, can the precise point be indicated *à priori?*

In respect to the first question, it may be confidently affirmed that it amounts to a question of diagnosis. If it be held that disturbance at the periphery be, in some cases, indication of disturbance at the centre, previous investigation must be interrogated as to what other causes can give rise to similar symptoms. If it is admitted that some portion of the spinal cord be at fault, this one case must prove that passive congestion or irritation of the cord is not *always*, at an early stage, manifested by any condition of the superimposed integuments amenable to physical exploration; therefore, arguing from the periphery alone, the doctrine of exclusion can alone settle the diagnosis. When the disease is situated in the head or the superior portion of the trunk, the urgency of the symptoms, the distinctiveness with which central, thoracic, and abdominal symptoms have been detailed, as well as the proximity to the various centres, serve to facilitate the diagnosis, whether the argument be by exclusion or direct; but when the pelvis or the extremities furnish the seat of manifestation of the disease, the doctrine of exclusion can alone give satisfactory information, and even this, in these cases, has to deal with the often indeterminate questions of uterine irritation, hysteria, neuralgia, and the like.

In respect to the second question, having settled the fact of irritation at the centre, can the precise point be indicated? The answer is—Yes, unquestionably. It is an entirely different matter to argue from origin to ultimate distribution rather than from ramification to trunk. The crudest anatomy serves here. It is impossible that irritation of the cord in the sacrum should manifest itself at the olecranon, or irritation of the cord in the cervical region should affect the patella.

It is unquestionably a fact, that the disease known as spinal irritation, whatever be its essential elements, furnishes a convenient city of refuge for a vast variety of uncertain diagnoses. It is always well to be safely harbored in the world's esteem, and if a patient's vanity is tickled by being lifted to a position among the aristocracy of lame-backs, and if a backbone is demonstrated to be possessed by any who may have had good reason to doubt whether they ever had one, so much the better for their medical attendants. However, if the name of the disease signifies anything in fact, it is desirable to be able to discriminate and detect it, for the benefit of those who do not wish to be placed on the retired list labelled "valetudinarians."

As respects the tendency of the disease, it is to recovery, by virtue of the recuperative powers incident to the economy. Perhaps this is true of the majority of the cases, though, the cause being kept up, the symptoms may continue in a modified form during a period of years; or, the irritation increasing, paralysis may result in those parts which are dependent for nervous influence on the affected portions of the cord.

Besides the ordinary means for relieving local congestion, counter-irritation has its place in the armory of defence. The various anodynes have likewise their place in treatment. When the disease is idiopathic, and not of too great extent, these agents, judiciously followed up, will usually furnish effectual and permanent relief. The hygienic and other measures applicable to convalescence from intense nervous exhaustion are to be persistently adhered to, and all influences likely to reawaken the disease carefully avoided.

THE CARLSBAD WATERS IN DIABETES MELLITUS.

By ADOLPH KESSLER, M.D.,

NEW YORK.

As long as the true cause and essential nature of diabetes shall remain obscure, and as long as pathological anatomy shall furnish only negative or at best inconstant and insignificant results, a rational treatment of the disease will be out of the question. The various theories that have been advanced within the last twelve or fifteen years, since which time especial attention has been directed to the malady under consideration, have failed to clear up and to place beyond doubt its pathogenesis and etiology; and despite the powerful strides experimental physiology and physiological chemistry are making, there is but little prospect that they will throw any light upon them in the immediate future.

The object of this paper, however, is not to discuss the pathology or even the therapy of diabetes, but to show the favorable effects of the natural Carlsbad waters, as demonstrated in a well-pronounced and rather serious case under my treatment. During the years 1866, '67, and '68, which I spent abroad, I had abundant opportunity to observe their beneficial effects, not only at the spring itself, but at the clinics of Vienna, Prague, Berlin, Würzburg, etc. The late Professor Oppolzer, whose loss to practical medicine is almost irreparable, was especially fond of their use and emphatic in their praise. What I had seen in hospital and private practice strengthened me in the belief that among all the remedials employed they take unquestionably the first rank. Without being specifics or benefiting alike all cases, they palliate many unfavorable symptoms, decrease the secretion of sugar and the quantity of urine, retard the development of the primary (diabetic) disorder, and effect a more or less lasting improvement, sometimes a permanent cure.

Although, generally speaking, not partial to that branch of medical literature which confines itself to the relation of ordinary cases and of particular modes of treatment, I may claim for the case I am about to narrate something more than a usual interest and importance, especially in consideration of the fact that hydrological therapeutics, according to a methodical plan, are with us yet more an exception than a rule.

Mr. N., a merchant, æt. 44, consulted me in the summer of 1870 about his rapidly declining health and strength, which he himself ascribed to diabetes. He had always enjoyed good health until about nine months ago, when, in consequence of business troubles and severe mental excitement, it began to fail. The true character of the disease was for some time concealed under prominent rheumatic and neuralgic symptoms, and only when the daily quantity of the voided urine commenced to assume inordinate proportions, and his thirst became morbidly increased, was it properly recognized. A chemical examination of the urine disclosed sugar, and confirmed the diagnosis of diabetes mellitus. The patient was placed under the diet and regimen usually prescribed in such cases, was directed to abandon his active business life and to move in the country, and took successively opium, bromide of potassium, and arsenic. All this, however, failed to afford any relief, and the disease, far from abating, grew constantly more serious and alarming, depressing alike body and mind. When I saw the patient the first time in July, 1870, his *status præsens* was as follows:—

Severe but rarely intermitting headache, chiefly in the occipital region; a diffuse bronchial catarrh, with copious expectoration; occasional paroxysms of dyspnœa, aggravated by continuous exercise; vehement rheumatic and neuralgic pains in the upper and lower extremities and lumbar region; a rough and dry skin, with a decided decrease of the normal bodily temperature; an unquenchable and tormenting thirst; an immense increase of the urine, the quantity of which varied but slightly from day to day, but exceeded the normal measure from five to six times; a considerable waste of the muscular and adipose tissues; a morbid pallor of complexion; great physical prostration and nervous irritability; sexual impotence; a melancholy disposition of mind, and partial anæsthesia. Auscultation and percussion of the chest revealed no signs of tubercles, and an exploration of the abdominal viscera furnished negative results. There was incipient cataract in both eyes, and only with great difficulty and after repeated trials in changing positions did I succeed in making a satisfactory ophthalmoscopic examination and in gaining a view of the interior ocular membranes. Both retinæ were found to be in a slightly congested state. The functional disturbances of vision corresponded with the anatomical lesions. The patient was unable to read common book and newspaper print, and could only make out Nos. 19 and 20 of Jaëger's test letters; convex glasses improved considerably the sight, but the eyes soon grew tired, and a blur or mist that came over them prevented him from continuing long in his attempts at reading. The specific gravity of the urine during the several days that I examined it varied from 1.036 to 1.020; and the tests for sugar—Moore's and Trommer's—revealed a considerable quantity of saccharine matter. Of albumen, however, there were no traces present.

The diagnosis of diabetes mellitus being thus fully established, I resolved at once to test the efficacy of the Carlsbad waters, and prescribed, therefore, a methodical "cure" in strict accordance with the rules and regulations as laid down in my treatise "On the External and Internal Use of Mineral Waters" (*N. Y. Medical Journal*, August and September, 1870). The patient commenced taking the *Schlossbrunnen*, and after a period of nearly three weeks the denser and warmer *Sprudel;* he drank both in their natural state, and in nearly the same degrees of temperature in which they are taken at the spring.

For the benefit of those that may not be acquainted with the chemical constitution of these famous waters, I subjoin here their analysis, as made by Prof. Ragsky, of Vienna:—

	Schlossbrunnen. (In 7.680 gr. = 16 ounces.)	Sprudel.
Sulphate of Soda	17.2455 gr.	18.2160 gr.
Sulphate of Potassa	1.4645 "	1.2564 "
Chloride of Sodium	7.5282 "	7.9165 "
Carbonate of Soda	9.6629 "	10.4593 "
Carbonate of Lime	3.0658 "	2.2870 "
Carbonate of Magnesia	0.3870 "	0.9523 "
Carbonate of Strontian	0.0046 "	6.0061 "
Carbonate of Protoxide of Iron,	0.0176 "	0.0215 "
Carbonate of Protoxide of Manganese	0.0053 "	0.0046 "
Phosphate of Alumina	0.0023 "	0.0030 "
Phosphate of Lime	0.0030 "	0.0015 "
Fluorcalcium	0.0291 "	0.0276 "
Fluorine	0.7365 "	0.5590 "
Bromide of Sodium, Iodide of Sodium, Boric Acid, Lithia, Rubidium and Cæsium,	Traces	Traces
	40.1523 gr.	47.7108 gr.
Carbonic Acid	10.2940 gr., or 20.6200 C.I.	5.8670 gr., or 11.8820 C.I
Temperature	125° F.	165° F.

The changes wrought by the Carlsbad waters were truly marvellous, so much so that they would scarcely have been credited, had they not been so obvious as to dispel all doubt. The improvement of the patient was rapid and steady. In less than two months from the commencement of the "cure" the production of sugar had altogether ceased, and the quantity and specific gravity of the urine were reduced to the normal standard. The most exact examination by various methods failed to disclose a trace of the former diabetic disorder. The visual disturbance, heretofore so clearly developed, disappeared, and the convalescent felt able to write and read without the slightest effort, and without the use of glasses. Headache, rheumatic and neuralgic pains, bronchial catarrh, and the other complicating symptoms enumerated above, subsided; strength of body and serenity of mind returned, and the weight increased about fifteen pounds. All these favorable changes were effected by the internal use of the Schlossbrunnen and Sprudel, together with the external use of alkaline baths; and although the gentleman resumed his ordinary business occupations and the mode of life of his former days—only with slight modifications upon which I insisted—and although more than a year has elapsed since he underwent a thorough treatment, no relapse of any kind has occurred, and he enjoys at present to all appearances the best of health.

Whether the improvement will remain permanent or a recrudescence will ensue in the future, is of course impossible to tell; but the present aspect of the case seems certainly to speak in favor of the first contingency; and even if the latter should happen, the efficacy of the Carlsbad waters in arresting the development of and improving diabetes is none the less demonstrated. That much is clear; but how do they operate, and in what manner do they prove remedial? Their physiological and therapeutic effects are well known, and experience has proved them to exert a beneficial influence upon diseases the cause and nature of which remain still a mystery. Chiefly operating upon the mucous membranes, the glandular and lymphatic systems, the cutaneous surface and kidneys, they regulate secretions, resolve glandular tumors, liquefy the blood, counteract the formation of acids and concretions, calm the excited nervous system, and are therefore excellent curative agents in a number of diseases, such as acidity of the stomach, in certain forms of dyspepsia, arthritis, lithiasis, biliary calculi, induration of the glands and uterine tissue, in chronic catarrhal affections of the mucous membranes, chronic skin-diseases, nervous disorders, hyperæmia of the liver, and *diabetes*.

In what manner do they prove remedial in diabetes?—a disease whose nature is still unknown to us. We can only hypothetically answer,—perhaps by decreasing the stasis of blood within the liver, or by operating upon the function of the liver itself, or by arresting the decomposing influence of the ferment. Although powerless to destroy or oxidize sugar, yet they may—and do most likely—prevent sugar formation by causing indirectly its transformation in consequence of neutralizing an undue acidity of the blood. Whatsoever their particular modus operandi, they certainly exert an ameliorating influence upon diabetes, and many well-authenticated cases are recorded by Seegen, Fleckles, Durand-Fardel, and other careful observers, showing that they have effected a permanent improvement and thorough cure. In other cases, however, the amelioration is only temporary, decreasing the thirst and excessive secretion of urine, arresting the anomalous production of sugar, improving the appetite, sleep, and nervous system, and thereby imparting more strength and vitality to the body and mind; and although this favorable condition may last for years, and engender the belief that the disease is perfectly eradicated, the patients die at last from tuberculosis or other exhausting complications. Yet to resume briefly, if we consider the insufficient remedial agents at our disposal, and the experiences concerning the efficacy of the waters of Carlsbad, the fact stands prominently forth that the latter hold deservedly the first rank in the treatment of diabetes, and should supplant all other remedies in its treatment. A few words more about the dietetic measures I saw proper to enforce in the case under consideration, and I have done.

It is certainly rational and essential to prescribe for diabetic patients a diet of animal food, and to restrict as much as possible the use of bread and other amylaceous nourishment. But a diet exclusively of animal food—a measure that has for many years been considered a *conditio sine quâ non* of proper and success-promising treatment—is generally distasteful, and but reluctantly complied with if at all tolerated for any length of time; patients get disgusted at this deprivation, especially when they fail to notice any change for the better, relax in their efforts to adhere strictly to the injunctions of the physician, and resort at last to the forbidden but much coveted articles of daily consumption. Moreover, recent observations have disclosed glucose in the liver and sugar in diabetic stomachs, even after an exclusive animal diet had vigorously been adhered to for some time, thus proving that the production of saccharine matter is independent of the ingestion of substances known to be readily convertible into sugar. These considerations influenced me in prescribing my patient's diet and regimen, and I presume they will before long be generally recognized. He had not tasted bread and other amylaceous food for months, but felt an almost irresistible craving after it, which he was sure he would not much longer be able to successfully withstand. This deprivation of a much-coveted article of food which enters so largely into the usual dietetic wants of man, appeared to be a source of great depression and misery, and aggravated considerably his condition. I allowed him, without hesitation, a moderate quantity of toasted bread and German *Zwieback* —rusk—at all his meals, and he welcomed the change with the utmost gratification almost as a relief. The bulk of his diet, however, consisted of

animal food, the various kinds of meat, fish, oysters, eggs, cream, and other protein substances; of certain vegetables and fruits that are not liable to the saccharine change; and besides a modest allowance of coffee and tea, and of the best qualities of Bordeaux claret in a diluted form.

The chief object of this paper is to call the attention of the profession to the efficacy of mineral waters, and to make propaganda for their more extensive employment in the treatment of chronic diseases. While the use of these remedial agents, which are prepared by nature herself, and by her endowed with wonderful healing powers, is much in vogue in Germany and the other European countries, it is with us here yet in its infancy, and even when resorted to, not surrounded with those safeguards that alone render it beneficial. Too much is left to the discretion of the patients themselves, and they are but too often allowed to make their own choice, and to imbibe large quantities of waters that are anything but indifferent, but, on the contrary, influence powerfully the animal economy. And when they happen to take the right waters, the efficacy of the latter is not seldom interfered with and wholly annulled by the non-observance of those hygienic and dietetic conditions which are absolutely indispensable for the display of curative effects. Mineral waters, whose component and soluble elements, consisting of salts, alkalies, gases, etc., are readily assimilated and actively engage all the organs of secretion and excretion, quickly pass into the blood and permeate the tissues of the body; what wonder, then, that their power for evil is as great as their power for good, unless they are rationally and properly employed, according to just indications, with a careful regard for individual conditions and idiosyncrasies, in a systematic and methodical form, and with a due observance of the proper hygienic and dietetic regimen. If administered in this way, they are surely destined to play a leading rôle in the medicine of the future.

A CASE OF OPIUM POISONING TREATED BY THE SULPHATE OF ATROPIA, WITH REMARKS.

By J. B. MURDOCK, M.D.,

OSWEGO, N. Y.

I HAVE read in your journal a number of cases of opium poisoning treated by the hypodermic injection of a solution of the sulphate of atropia. As the value of this treatment is not yet settled, I send another case which lately fell under my observation, to be added to those already reported, should you deem it worthy of such a place.

Mrs. S., a stout lady, aged 30 years, possessed of a happy home, an indulgent husband, two interesting children, the youngest four years old, is the subject of this history.

On the 9th of last month her husband came home about noon, at his usual hour for dinner. Not seeing his wife, who usually met him at the door, he inquired for her. He was informed that soon after breakfast she had taken a short walk, and on her return, complaining of a headache, had gone to her room, leaving directions that she did not wish to be disturbed until dinner-time, for she wished to have a good nap.

Mr. S. immediately went to the door of his wife's room, and called to her, but not succeeding in arousing her at once, burst the door open and found her lying upon the bed in an insensible condition. He also found under the bed an empty two-ounce vial labeled "Laudanum," and a letter directed to himself from his wife, in which, after bidding him and the children good-by, she says, "Oh, my head, my head, I must do it." It was also ascertained from the druggist, whose name was upon the vial, that she had purchased from him that morning an ounce and a half of laudanum.

At 2 o'clock P.M., four hours after the poison was thought to have been taken, I saw Mrs. S., in consultation with Dr. J. K. Stockwell her attending physician, and Assistant Surgeon H. E. Brown, U.S.A. We found Mrs. S. lying upon her back in the bed, suffering with the usual symptoms of opium poisoning. The narcotism was complete. *Surface of body* pale, and covered with a profuse cold perspiration; *complexion of face* of a dark livid hue; *respiration* eight per minute; *pulse* 120, small and irregular; *pupil* contracted to a point.

Before my arrival, Dr. Stockwell had given, by the mouth, one-fifteenth of a grain of the sulphate of atropia. But not feeling sure that any of it had reached the stomach, and as it had produced no effect, it was resolved to repeat this remedy hypodermically, also to use the stomach-pump.

The stomach, as was expected from the long interval which had elapsed since the poison was taken, was found empty. It was, however, well washed out, and a quart of strong coffee thrown in and allowed to remain.

While Dr. Stockwell and myself were thus engaged with the stomach-pump, Dr. Brown had injected under the skin of the forearm one-quarter of a grain of the sulphate of atropia. I feared the result of so large a dose of this powerful narcotic. The pupil responded to its action promptly. In ten minutes it was dilated to its utmost capacity, and the patient began to show signs of life by uttering a pitiful moan.

In half an hour the respiration had increased to ten per minute; the pulse remained at 120, but was stronger and more regular; the surface of the body became warmer, and was suffused with a scarlet efflorescence. This was particularly marked in the face, which changed from its dusky hue to a bright florid. Dr. Brown says that this change of color began on the side on which the hypodermic injection was given, but this I did not observe.

In an hour the patient began to show signs of returning consciousness, and I left her with hopes of recovery.

At 9 P.M. of the same day I again saw the patient. She had so far revived as to recognize her friends, and would answer questions when aroused by a good shaking, but would at once relapse into her lethargic state; the pupil still widely dilated, respiration eleven per minute, skin warm and of a scarlet hue, pulse 120 per minute.

August 10th, 10 A.M.—Dr. Stockwell, who remained all night with the patient, informs me that she remained as I saw her the evening previous until about 4 o'clock in the morning, when suddenly the respiration increased from eleven to nineteen in the minute, and was of a sighing character, the jaw dropped, and the pulse ran up so that it could not be counted. She was thought to be dying, but under the use of friction, stimulants, and a little nourishment, she again revived after remaining three hours in this condition. She is now quite herself, and although quite restless and weak, has no doubt passed the crisis.

I did not see Mrs. S. after this, but Dr. Stockwell informs me that she continued to improve from this time.

He gave her occasionally for two or three days a

powder of one-sixth of a grain of morphine with one grain of quinine, which quieted her restlessness and improved her appetite. On the third day after this attempt at suicide, the catamenia, which had been suppressed for three periods previous, returned, and with it her spirits and health.

This case is interesting from the fact that the melancholy condition of the patient's mind which culminated in this attempt at suicide was influenced or induced by some uterine trouble which had caused a suppression of the menses. A similar condition of mind, although in a less degree, was observed a year ago, when she missed five periods. At neither of these times was Mrs. S. ever considered insane. She was sometimes quite low-spirited and complained a good deal of headache, but this attempt at suicide is the only insane act she is known to have committed.

This case is also interesting as being another to be added to those already published showing the antagonism which exists between belladonna and opium.

The dose of sulphate of atropia, one-quarter of a grain, is so much larger than I have ever seen recommended to be given hypodermically, that I am inclined to think that in this case some of the injection must have been lost. And notwithstanding it was in this case the means of saving life, it also came very near destroying it. The quantity of the antidote should bear some proportion to the quantity of the poison absorbed. But I should be slow ever to recommend so large a dose as was used in this case.

I think one-fifteenth of a grain of the sulphate of atropia, injected every fifteen minutes until the effect is observed upon the pupil, would answer all the purposes of a large quantity.

RUPTURE OF THE HEART FROM EXTERNAL PRESSURE.

By B. F. SHERMAN, M.D.,

OGDENSBURGH, N. Y.

E. P., about forty-five years old, in perfect health, while exerting his utmost strength in pushing a freight car on the railroad track, was struck in the back by another car in motion. He immediately fell, or as one witness swore, threw himself outside the cars and off the track, and died instantly, without speaking or moving. Examination three hours after death. Countenance and external surface of the body bloodless, with no marks of violence except the following, viz.: over the left mammary region were small but distinct ecchymosed lines of quadrilateral form, inclosing a space of about 6 × 8 inches, just the size of what are called the "dead woods" on freight cars. On the back, upon the right scapular region, were similar marks, but less distinct.

The removal of the integument and muscles from the chest revealed the fracture of two ribs upon the *right* side, the *fourth* two inches from the cartilage, and the *seventh* half an inch from the cartilage, with infiltration of blood about these fractures opening into the chest. The whole pleural cavity on both sides was found distended with warm fluid blood, except in the most dependent part were clots of considerable size. The pericardium was ruptured upon the *right* side, a slit four inches long. The right auricle was ruptured at the entrance of the cavas, an irregular opening sufficient to admit the end of three fingers: the right ventricle had a rough oval opening near the septum between the ventricles and one-third from the apex. This opening looked like that made by the exit of a rifle-ball, or of some force from within out. There was no other injury or abnormal appearance.

Reports of Hospitals.

CHARITY HOSPITAL, BLACKWELL'S ISLAND, N. Y.

A NEW MODE FOR THE TREATMENT OF SUPPURATING BUBOES.

By ST. GEO. W. TEACKLE, M.D.,

HOUSE-SURGEON.

Numerous and comprehensive are the articles upon this subject that have appeared from time to time in the medical journals of this country and Europe. It is, therefore, not for the purpose of claiming the credit of making a new discovery in treatment of suppurating buboes that prompts me to publish this,—for the mode of procedure I am about to mention differs but little from that proposed by Langeston Parker, and others, and was first suggested by the repeated failure of a plan published in the *Lancet* for February, 1871, of withdrawing the pus from the bubo with an hypodermic syringe, and immediately afterward by the same instrument injecting astringent solutions into the cavity;—but it is simply to bring before the profession a plan of treatment which with me, as regards cure, and the leaving of a small, if any, cicatrix, has proved remarkably expeditious and successful. The mode of procedure is this, viz.:—

As soon as fluctuation is detected in the bubo, to make an incision into it about a third of an inch in length, and having squeezed all the pus out through this opening, to take an ordinary male urethral syringe and inject alcoholic tr. iodine, the quantity regulated by the size of the bubo; then, having squeezed out the injected fluid, apply a sponge compress large enough to cover the bubo completely, placing a piece of lint between the sponge and skin of the patient, and over all a tightly fitting spica bandage. After twenty-four hours take dressings should be removed and the bubo gently squeezed, to discharge any pus that may have collected, and the compress and bandage again applied as above mentioned.

The patient should be kept in bed for four or five days, and his general health attended to.

I have treated four cases in this manner and in all have had remarkable success, as the histories of the cases below appended will show.

Case I.—Jas. M., aged 25, S. U. S. Admitted into Charity Hospital July 4, 1871.

Patient states that he contracted a venereal sore several weeks ago; period of incubation four days.

Three weeks ago he experienced pain and noticed a swelling in left groin, and about one week later the same symptoms made their appearance in right groin. When admitted had suppurating bubo in left groin; superjacent integument red and somewhat thinned; also, had suppurating bubo in right groin in inflammatory stage; red, very painful, and indurated.

July 6th.—*Treatment.* An incision sufficiently large to admit the nozzle of an ordinary male urethral syringe was made into bubo on left side, about an ounce of pus evacuated, alcoholic tr. iodine injected immediately, and a compress and spica bandage applied as above mentioned.

July 7th.—Compress removed, slight thin discharge oozed out of incision, and compress was reapplied.

July 8th.—Compress again removed, discharge hardly perceptible, healthy action has been induced, and adhesions have taken place to some extent beneath the undermined integument.

July 15th.—Complete resolution has taken place, and

patient would be discharged but for the bubo in right groin, to which a poultice farinæ lini was applied.

July 20th.—Fluctuation being detected in this, a small incision was made, about an ounce of pus evacuated, and similar treatment as above mentioned pursued.

July 28th.—There is scarcely any sign of buboes, the cicatrices of the incisions being scarcely perceptible, and very little induration remaining.

Case II.—Maggie P., aged 21, S. U. S. Admitted into Charity Hospital July 1, 1871.

Patient states that she contracted a venereal sore two weeks ago; period of incubation three days. On admission had suppurating bubo in left groin, which first attracted her attention a week ago. Integument over bubo presents a purplish color, but is very little diseased and of nominal thickness.

July 6th.—Fluctuation being detected a very small incision was made, about an ounce of pus evacuated, tr. iodine injected, and compress applied. The compress was removed and reapplied for five consecutive days, when adhesions had taken place, and patient was discharged cured with scarcely any induration remaining.

Case III.—Mary K., aged 34, S. U. S. Admitted into Charity Hospital May 3, 1871.

Patient contracted a chancroid in April, 1871; it became phagedenic in character, and was cauterized with NO_5, and afterwards dressed with

℞ Acid Tannic..... ʒ i.
Glycerine..... ʒ i.

June 15th.—Chancroid healed and patient was about to be discharged when she called attention to a bubo in right groin. This was indolent in character, and was painted with tr. iodine.

July 1st.—No improvement in bubo. The following ointment was ordered.

℞ Potass. iodid..... ʒ i.
Iodine..... gr. v.
Ungt. hydrarg..... ʒ i.

Mix.

After using above ointment for several days inflammatory action was manifested, and a poultice of farinæ lini was applied.

July 24th.—Fluctuation was detected, and the aforementioned treatment resorted to. In this case the compress was retained in position with great difficulty owing to the obesity and restless disposition of the patient, and a roller was placed under the spica bandage on top of the sponge.

July 28th.—Patient discharged cured with the exception of some induration. This induration could not be expected to disappear very soon owing to the long duration of the bubo.

Case IV.—Julia M., aged 17, S. U. S. Admitted into Charity Hospital July 25, 1871.

States that she contracted a venereal sore five weeks ago; period of incubation four days. About one week after she experienced tenderness and noticed a swelling in both groins. Had them poulticed; one in left side opened spontaneously. When admitted had large bubo in right groin, very much elevated; integument covering it very thin and of a purplish color.

July 26th.—*Treatment.* A small incision was made into it attended with a free discharge of several ounces of purulent matter, and the above-mentioned treatment was applied. Owing to the extensive suppuration, it was feared that the superjacent integument would slough, as it was apparently diseased, but on removing the compress two days later there was very little discharge, adhesive inflammation already having been induced.

August 2d.—Patient completely cured.

In none of the above cases was it deemed necessary to administer an anæsthetic. The operation is attended with some pain, but it is of short duration.

Since the above was written I have pursued the same plan of treatment in about fifteen cases, and in only two of the cases was the result at all unsatisfactory.

Progress of Medical Science.

The following abstracts of some of the papers read at the meeting of the *British Medical Association* at Plymouth, on the 8th, 9th, 10th, and 11th of August, are taken from *The Doctor*.

Dr. J. Hughlings Jackson read a paper on Tumor of the Middle Lobe of the Cerebellum.—This case was observed in the London Hospital by the author and by Mr. Stephen Mackenzie. There was found, on post-mortem examination, a tumor of the middle lobe of the cerebellum, which had pressed on the corpora quadrigemina and on the veins of Galen. There was also a small tumor of the right corpus albicans. Much fluid was found in the cerebral ventricles, and the horns of the lateral ventricles were greatly dilated. The chief symptoms during life were—(1) enlargement of the head, (2) double optic neuritis, and (3) reeling gait, followed by permanent rigidity of the legs and paroxysms of convulsions somewhat like those of tetanus. These seizures, the author supposed, furnish some evidence in support of the view that the changes in tetanus are in the cerebellum.

Mr. Furneaux Jordan read a paper on The Extension of Inflammation from the Epididymis to the Urethra."—Inflammation of the prostatic urethra from any cause (injuries, operations, foreign bodies, urinary obstructions, or adjacent inflammations), may, he said, extend to the epididymis. It would be an original discovery to find any variety of prostatic inflammation which might not run by continuity along the submucous connective tissue of the vas deferens. He was not aware that any one had observed the converse of this. He had recently watched a case in which inflammation unmistakably travelled from the epididymis to the urethra. A married man, free from disease and the history of disease, suffered from the effects of a severe blow on the scrotum. On the subsidence of scrotal swelling, the left epididymis was found to be enlarged, painful, and tender. The next day the adjacent portion of the vas deferens was tender, and swollen to the size of a goose's quill to near the inguinal ring. The following day the swelling of the cord extended to the ring. A few days later a slight urethral discharge appeared, and all the symptoms of a mild urethritis. Mr. Jordan believed any new fact to be of value which would help to explain urethral discharges.

Comparative Advantages of Laryngoscopic Treatment, and Direct Incision into the Larynx formed the subject of a paper by Dr. Morell Mackenzie. He stated that the relative advantages of these two methods must be considered in relation (1) to the quickness of cure, (2) completeness of removal and probability of recurrence, (3) danger to life, and (4) restoration of voice. From an experience of 100 cases treated, a month was estimated to be the average duration of laryngoscopic treatment. External treatment, on the other hand, required only a fortnight. As regards the second question, complete removal was able to be effected in 97 per cent. of the cases which underwent the full course of laryngoscopic treatment, and recur-

rence took place in about 7 per cent. In twenty-eight cases of direct incision, collected from all sources, ten died in a short time) and in the remaining eighteen the growth was incompletely removed in three cases, and recurrence took place in three cases, or, in other words, in 20 per cent. As regards danger in life, no death occurred in the laryngoscopic cases, whereas, of the twenty-eight treated by external operation, three immediately terminated fatally, 6 died at the end of a few months, and one from an independent disease. With reference to restoration of function, perfect voice was regained in 77 per cent. of those who underwent laryngoscopic treatment, and a more or less serviceable voice was restored in 16 per cent. Of the eighteen patients who survived direct incision more than a few months, only nine* completely recovered their voice, four had persistent hoarseness, and six permanent aphonia. Consideration of the above statistics establishes the permanent value of laryngoscopic methods of treatment, and justifies one in saying that extra-laryngeal treatment ought never to be adopted unless there be danger to life from suffocation or dysphagia.

Dr. Wilson Fox read a paper on Treatment of Hyperpyrexia, as Illustrated in Acute Rheumatism, by the External Application of Cold.—He said cases of acute rheumatism in which, after a course of variable severity, the temperature suddenly rises from 103° or 104° to 107°, 108°, or 109°, have usually proved fatal within a very short time after the latter temperature (109°) has been attained. In the majority, indeed, of published instances this has been the case within one or two hours; and Wunderlich regards this terminal rise as "proagonic," or as one of the phenomena of death—a view still further borne out by the fact that a future elevation is often continued for one or two hours after life has apparently ceased.

He published last year a case in which, by means of repeated immersions in the cold bath, life was protracted for nearly thirty-six hours after the patient's temperature, while suffering from acute rheumatism, had reached 109°, death finally taking place by exhaustion at a temperature of 104·4°. This case had been complicated by a large bleeding, practised before the bath was employed, in the hope of thereby producing a reduction of temperature, when this had reached 109°, and when the patient was violently delirious. Venesection to more than twenty ounces had no effect whatever in checking this rise; and the hope was expressed that cases of this nature, treated by the cold bath and without venesection, might yet show a favorable termination, and this hope has been realized in two cases. The patients, a man and a woman, have completely recovered under this treatment, after rapidly attaining a a temperature, in one case of 110°, and, in the other, of 107·3°. Both were first attacks of the disease; and, indeed, this ordinarily fatal mode of termination appears to be more common under these circumstances.

Dr. R. W. Crichton read a paper on The Value of the Sulphate of Iron as a Local Application in Phlegmasia Dolens.—This method of treatment was first adopted by the author many years ago, from the great success reported by Velpeau from its use locally in erysipelas. It had been employed exclusively in that form of phlegmasia dolens commencing at the calf of the leg and extending upwards to the groin, where the veins are chiefly involved. It had been applied as a lotion (twenty or thirty grains to one ounce of water), as hot as the patient could comfortably bear it, generally by means of spongio-piline. All the cases so treated had made good and rapid recoveries, contrasting favorably with cases formerly treated by leeching and hot fomentations. Muriated tincture of iron was, at the same time, given in large doses. The same method of treatment was suggested in other cases of phlebitis.

The Lesions of Enteric Fever as an Occasional Cause of Permanent Injury to Nutrition was spoken of by Dr. Clifford Allibutt. He drew attention to the convalescence from enteric fever, which is well known to be often so tedious; and he raised the question whether the specific lesions of that disease, affecting as they do the instruments of absorption, might not sometimes be the cause of permanent marasmus. In enteric fever the local mischief falls not only upon the patches of Peyer in the ileum, but spreads itself throughout the network of the mesentery. If a rat be fed upon tallow candles and then killed, the presence of the fat in great quantities in the mesenteric network and glands shows how active is that system in taking up this element of nutrition. Any disease, therefore, which interferes with this system, like enteric fever within it, or chronic peritonitis outside it, would have its visible effect in hindering the absorption of fat and in preventing the laying on of adipose tissue. These considerations occurred to the author in consequence of his advice being sought in several cases of marasmus pure and simple, without local disease, without fever, and without adequate loss of appetite. In all of those a severe attack of enteric fever had preceded the marasmus. The patients, who were almost denuded of adipose tissue, had, previous to the attack of fever, been in good health.

Pneumothorax Treated by Aspiration.—At the London Hospital, Dr. Ramskill had recently under his care two patients who suffered from pneumothorax. They show, says the *Lancet*, the great value of the pneumatic aspirator in the treatment of the disease.

In the case of a phthisical girl, æt. twenty-eight years, the smallest needle of the aspirator was introduced, in which air was discovered in the left pleural cavity, posteriorly between two of the lower ribs, and seventy-four ounces (by measure) of air was drawn off, and the relief given instantaneous.

In the case of a male patient, æt. fifty years, the right side of whose chest was resonant from the second rib, and tympanitic from the root of the lung downwards, and whose liver was pushed below the ribs, the small needle was introduced at the ninth intercostal space, and between sixty and seventy ounces of air was pumped out. The patient recovered.—*Ibid.*

Pathological Appearances in the Eyes in Trichinosis.—Dr. A. Kittel, in the *Wien. Allg. Med. Zeit.*, mentions that in 1870 there were in Elbau, in Saxony, no less than ninety persons who had partaken of the flesh of a pig recently killed. Soon after the stiffness of the muscles of the neck was remarked, it was noticed that the expression of the eye was very rigid, although the eyeball could be moved about without difficulty. This was attributed to the presence of trichinæ in the muscles of the eyeball. The patients were conscious of stiffness and difficulty in motion of the eyes. In a few days œdema of the eyelids was noticed, and of the tissues around the orbit. Afterwards the conjunctiva oculi became œdematous so as to resemble the appearance in gonorrhœal ophthalmia. There was injection of the conjunctiva of the eye, and the palpebral conjunctivæ were very red, and also a little œde-

* These cases are tabulated in the Thyrotomy table in the author's "Essay on Growths in the Larynx." In this table, however, the result of Case 27 is entered as "not stated," but since the publication of the volume Dr. S. Cohen has informed the author that the result "was complete restoration of voice."

matous. When the œdema of the eyeball was at its height, the eyeball was rather prominent, and its motility disturbed. The iris contracted, and there was great mydriasis, so that there was no motion of the iris even in changing of the light. The power of seeing was so far disturbed that the patients said they saw everything as if surrounded by a halo. Such appearances were only noticed in the severest cases of trichinosis; they were bilateral and symmetrical. Prof. Klob and Dr. Bonor have noticed trichinæ in the muscles of the eyes in which paresis occurred during life. The curious rigidity of expression, the unsteady glance, and the impossibility of fixing any point for any length of time, are explained partly by the paresis of the muscles and partly by their being pushed forward. The disturbance of vision may arise from pressure on the optic nerve. Whether the mydriasis is owing to irritation of the sympathetic, as is seen in cases of helminthiasis, is doubtful.—*Ibid.*

Popliteal Aneurism Cured by Compression.—Dr. A. Scarenzio (*L'Ippocratico*, July, 1871), relates how an elderly medical man observed in December, 1861, a pulsating tumor in the right popliteal space. His friends recommended ligature of the femoral artery, which patient did not like, and therefore attempted his own cure by pressing the artery against the horizontal ramus of the pubes. The tumor, which had been before this as large as a lemon, ceased to pulsate, and became quite small, although the compression was intermittent, and lasted only forty hours in five days.—*Ibid.*

Loose Cartilages in the Knee-Joint.—Among the papers read was one by Mr. W. J. Square, upon the above disease, with special reference to its treatment by subcutaneous incision and removal of the cartilage. The author stated that since he published his account of this operation ten years ago, when he related nine cases, he had performed the operation fifteen times. The twenty-four cases had all been operated on without selection, and all had recovered without drawback. The operation, as practised by the author, consists in the conduction of the cartilage to the inner and lower part of the joint, and maintenance there by an assistant. A tenotomy knife is then introduced, and the capsule of the joint freely incised upon the cartilage. The knife is then directed so as to open the cellular tissue over a convenient part of the fascia. The cartilage is now pressed and lifted out of the joint into the cellular bed prepared for it, and slides along for about three inches. It is fixed *in situ* with a firm pad and adhesive plaster, the foot and leg being bandaged up to the edge of the cartilage, and the limb placed in a splint. If no inflammation ensue, the cartilage is excised about a week after the operation. In reply to a question as to whether he fixed the cartilage by passing a needle through it, and then cut down upon it, he said he had done so on two occasions, and found the plan very inconvenient, as there was great difficulty in withdrawing the needle, which stuck firmly.

He believed that this affection was not dependent upon rheumatism, but upon violent use of the knee. Mr. Longmore stated, however, that only one case had occurred in nine years of his experience among the soldiers in Italy.—*Brit. Med. Journal.*

Gelatine as a Vehicle for Powerful Medicines.—Dr. T. Huseman (*Centralblatt Med. Wis.*) gives an account of the method of Prof. A. Almen, of Upsala, for the administration of medicines by means of the *gelatinæ medicatinæ lamellis.* This method, which has been extensively used in Sweden, renders the administration of powerful medicines easy and exact. Glue (6 grammes) is dissolved in warm water (230–260° Cent.), and then the medicine added. The solution is poured upon a plate of glass to solidify and dry. The stiffened mass, of the thickness of paper, is divided into squares, each of which contains a certain dose. A slight addition of glycerine serves to make the otherwise brittle gelatine tough and flexible as paper. Too much glycerine makes the gelatine soft and too readily moist. With insoluble drugs, it is necessary that the medicine be added to the glue in a thick emulsion; gum-acacia being preferred to gum-tragacanth. The gelatine must not be placed dry upon the tongue, but must be moistened and swallowed with a glass of water. The chief drugs used by Prof. Almen are: Acetate of morphia, tartarized antimony, acetate of lead, sulphate of copper, extract of opium, opii levantici, extract of belladonna, comp. extract of colocynth, calomel, powdered ipecac, infusion of ipecac, powdered digitalis, infusion of digitalis and camphor. Atropine and physostigmatis, prepared in this manner for local application to the eye, have proved useful, but the preparation of mustard and cantharides for application to the skin have not been thoroughly tried.—*The Press and Circular.*

Epidemiology of Small-Pox.—Dr. De Rinzy states that in the Punjaub, where small-pox is always raging, and slays its victims by thousands, the mortuary statistics show that the mortality from it begins to decline every year in June, the decrease in the number of deaths being steadily progressive in July and August. In the month of September or early in October the disease reaches its *minimum* of destructiveness. The deaths show a marked increase in November, and the increase continues, but somewhat unsteadily, in the succeeding months up to the end of May or beginning of June, when, as already stated, it attains its *maximum.* The cause of the fluctuation is altogether unknown.

Sosparitet is the name of a new article for the toilet, said to be composed of camphor and phenic alcohol, skilfully disguised by a combination of essential oils, glycerine, and spirit. It can be used, properly diluted, as a mouth-wash, a few drops being poured into the water with which the teeth are cleansed, in order to remove any unpleasantness of the breath arising from smoking, disordered stomach, or decayed teeth. A tablespoonful mixed with half a pint of water makes a capital hair-wash, and a couple of tablespoonfuls is a good addition to the morning bath. It seems to make an agreeable form of disinfectant for toilet use.

The Use of Carbolized Catgut Ligature.—Dr. George Buchanan, of the Glasgow Royal Infirmary (*The Practitioner*), relates a good example of a circumscribed traumatic femoral aneurism becoming diffuse, which was successfully treated by laying open the sac and applying a ligature above and below the wound in the artery. Carbolized catgut ligatures were used, because he believes that they produce obliteration of the vessel without ulcerating through the coats, as ordinary ligatures do; and although this process is of no importance in the case of vessels such as the superficial femoral or brachial, yet undoubtedly it is the cause of the secondary hemorrhage which is so frequently the cause of death after ligature of the larger vessels near the aorta. If, then, it can be established by the publication of a sufficiently large number of examples, that ligature of vessels on the antiseptic principle, with carbolized catgut ligatures, is followed by obliteration of the canal without ulceration of their coats, one of the objections to ligature of the great vessels would be removed.

An Enormous Specimen of Odontolithus.—J. J. Vincent, D.D.S., of Amherst, Mass., recently exhibited a specimen of tartar, or odontolithus, which measured three and a half inches in length and half an inch in breadth; the base was nearly half an inch thick. The patient, wife of a clergyman, aged 35 years, positively stated that she had always been in the habit of brushing her teeth inside and outside three times daily. The specimen was removed from the coronæ of the teeth of the lower jaw, viz., the incisors, bicuspids, and canines. A species of infusoria, *Denticula hominis*, was found in it.

The Use of Iron in Scarlatina.—Russell Aldridge, M.D. (*British Med. Journal*), is desirous of drawing the attention of the profession to the use of iron in scarlatina. He has given it for the past two years with great success, so much so as to induce him to believe that in it we have a powerful remedial agent for that disease. Not only does it shorten and lessen the severity of the attack, but it also fortifies the patient against the after-consequences—dropsy, etc. The form which he has mostly used has been the liquor of pernitrate of iron in syrup or glycerine, in doses of ten minims every three hours for children of from one to six years, increasing, according to age, to fifteen, twenty-five, or thirty minims. During convalescence he has given citrate of iron and quinine, ammonio-citrate of iron, or syrup of phosphate of iron, according to circumstances.

No Mental Symptom for Brain Lesion.—T. S. Clouston, M.D., Med. Supt. of the Cumberland and Westmoreland Asylum, Carlisle (*The Practitioner*), states that at present there is absolutely no mental symptom or train of mental symptoms, which, taken by themselves, are certainly diagnostic of any particular brain lesion. And if this is all that has been gained by centuries of the old method, we cannot lose much, and might gain something, he says, if we began a new method and concentrated the greater part of our attention on the bodily conditions, deeming nothing too trivial to be observed, and nothing too irrelevant to be noted.

Physiological Effects of Anæsthetics.—Dr. J. L. Prevost, of Geneva (*The Practitioner*), in his "Note on the Physiological Effects of Anæsthetics," says in conclusion, that his experiments lead him to believe that chloroform, in order to anæsthetize the nervous centres, must reach those centres, and that it only anæsthetizes the part with which it is in actual contact, whether in the case of the brain or in that of the spinal cord.

Gangrenous Vulvitis in Children.—Dr. Guersant (*Med. News and Library*) publishes the following treatment of this affection. It may be local or general, the principal indication being to combat the disease which debilitates the patient. The various kinds of tonics, as cinchona, bitter tonics, broth, wine, coffee, etc., may be placed in the first rank. The local treatment is not less indispensable. Applications of lemon-juice, powders of cinchona and camphor, vinous lotions, etc., may answer the purpose, but these means often fail. The best means of limiting the gangrene is the use of iron heated to a white heat. Cauterization should go beyond the boundary of the slough, which may still often be crossed by the disease the next day. When this powerful local agent succeeds, there remains a large ulcer, a real burn of variable depth, which requires the same dressing as burns of this region. It is important that slightly camphorated powders of cinchona and charcoal should be applied; and lotions, including aromatic wine or chlorinated water, may be found of service. Finally, all possible precautions for the prevention of adhesions of the labia are of the highest importance. The dressings should be carefully made and frequently renewed.

Coxalgia.—Dr. Guersant (*Med. News and Library*), referring to the treatment of coxalgia, thus remarks in regard to abscesses:—When the abscess becomes decidedly prominent, it is our duty to open it. As a general rule, we postpone this as late as possible, to avoid the exhaustion consequent on a long suppurative discharge. When we decide to open it, we sometimes have recourse to puncture with a long, flat trocar devised by M. Guérin, and to suction by means of a syringe, which may be screwed to the canula; sometimes to simple puncture, or the application of a drainage-tube, according to the method of M. Chassaignac. Sometimes the purulent collections emptied by the trocar do not fill up afresh. Most frequently the abscess is reproduced as before, or else the puncture becomes the seat of a fistulous tract. Advantage may be derived in such cases from iodine injections (one part of tincture of iodine to two parts of water), according to the suggestion of M. Boinet. The drainage-tube has the advantage over ordinary setons of allowing of detergent injections into the purulent collection, by adapting to it the canula with a syringe.

Irrigation of the Pharynx.—Dr. Guersant (*Med. News and Library*) alludes to those cases of very intense inflammation of the pharynx where the patients have much trouble in opening their mouths, and can scarcely separate the teeth. For these cases, and especially for children, in simple or violent inflammation of the tonsils, in abscess of those organs, in pseudo-membranous stomatitis, in diphtheritic membranous stomatitis, in diphtheritic pharyngitis, or gangrenous inflammations, or even in chronic granular or other forms of angina, much advantage is derived from irrigations of the throat. As a syringe or an irrigator must always be used, it would only be a question of having a suitable canula to depress the tongue and make the fluid spirt into the different parts of the throat. The ordinary gum canulas do not depress the tongue, and may be bitten and broken by children. In order to overcome this defect, he has had constructed an instrument which is called the canula tongue-depressor, made of bronzed aluminium, that metal having the advantage of not being altered by sulphurous water, which may be used under certain circumstances, in chronic amygdalitis for example. It has the shape of the extremity of a spoon-handle, is slightly curved, from five to six inches in length, and one-fifth of an inch thick, and hollow in its whole extent. Its extremity, which is designed to depress the tongue, has on its circumference and on its convexity a certain number of small holes, like those of a watering-pot. At the other end is a true canular extremity, which may be adjusted to the caoutchouc tube of an irrigator, or even of a syringe.

These irrigations may be repeated several times a day. Older persons easily accustom themselves to its use, and even children at last consider it an amusement. In certain forms of chronic amygdalitis, and in granular inflammation, he has obtained good results from irrigation, by the use of sulphurous waters, as practised by Dr. Lambron, at Luchon.

Dahlberg's Tincture.—Tincture colocynthidis, known also as "Dahlberg's Tincture," is made as follows: Colocynth pulp (cut small and free from seeds), ℥i; aniseed, ℥i; proof spirit, 1 lb. Digest for eight days, express and filter. Dose, 6 to 20 drops.—*Pharm. Journ. and Transactions.*

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CUNDURANGO UNDER THE PATRONAGE OF THE STATE DEPARTMENT.

THE profession are growing more and more suspicious of the reputed effects of Cundurango, and of the disinterestedness of Dr. Bliss. The reports in the daily papers, the manner in which the remedy was first brought to the notice of the profession, and the attempts to obtain a monopoly of the drug, are facts with which our readers are already familiar. Notwithstanding, however, that a prejudice has thus been created against the vaunted discoverer of this wonderful remedy, and, as a matter of course, against the remedy itself, the profession in their eagerness to find a cure for cancer are not tired in looking for reliable facts. But no trustworthy accounts of the effects of the Cundurango have reached them except negative ones. This does not, however, deter us from seeking more light. The distrust of its virtues is not yet so strong but that we are ready, nay anxious, to be converted to different opinions. Dr. Bliss, it is true, has forfeited the confidence of the profession, has degenerated from a conscientious observer to a mere speculator, but there are others, however, who can never descend to such a grade, who have made the best use of cultivated powers of observation, of extensive experience in the treatment of cancer, and are able to judge properly whether the Cundurango is a boon to humanity or is worse than nothing. Very few of such gentlemen have had the privelege of experimenting with the drug. All of these, it would seem, have had such opportunities granted them on an understood condition, that their reports of its efficacy should be sent to the State Department. As a matter of courtesy no medical gentleman could object to such a condition, especially if he have reason to believe that the Department makes the best use of the information thus obtained. But how can we explain the fact that reports adverse to the opinions held by Bliss and other interested parties are not only withheld from publication, but that medical men are peremptorily refused the privilege of consulting such reports? Some gentlemen have been told that the various opinions of medical men now on file in the office of the Secretary of State will not be published until they are completed! We may excuse this on the ground that time is required to unravel the mass of red tape in which State documents are officially enveloped; but under the circumstances, believing that Bliss, who is known as a politician, is too much interested in the sale of his remedy to favor the dissemination of damaging opinions, we strain our charity.

If there are any real merits in Cundurango, it is time that the profession should hear of them, and we intend to do all in our power to enlighten our readers at once. We are willing to give it every chance to speak for itself in the legitimate way, and invite such as have tried the so-called specific and have sent documents to the Department, to furnish us with duplicates. The discussion belongs legitimately to the medical profession; and save in a purely official way, the Honorable Secretary has no more to do with the matter than has Mr. Colfax to become an authority on pathology. We present our readers with one of the reports made to the Board of Governors of the New York Hospital, and sent by the Committee to the Department of State. It may be considered a sample of others, to which the profession are positively refused access:—

"The undersigned, a committee of the physicians and surgeons of the N. Y. Hospital, to whom were addressed certain packages of a remedy known as Cundurango, and claimed to be a cure for cancer, which had been sent from the Department of State in Washington to the Governors of the Hospital, and by them referred to the Medical Officers of the Hospital for trial, report:—

That they distributed it among medical gentlemen of known capacity, to be administered by them according to directions accompanying the remedy, to patients under their charge suffering from cancer.

From the written reports of these gentlemen the committee derive the following particulars, which they herewith submit:

DR. JOHN DOLE, of Amherst, Mass., writes:—"June 22d. His patient was a lady, 44 years of age, mother of two sons. She had a hard, nodulated, flattened cancer, involving the entire right mamma, which was adherent to the ribs, and covered a space of between three and four inches in diameter. From the surface there oozed a thin serous discharge. In the right axilla and supraclavicular region there were hard nodules evidently involving the axillary plexus of nerves and causing severe neuralgic pains extending down the arm. In the left mamma, which retained its form, though wasted, a hard, small nodule was felt. The disease had existed about two years and a half, and first developed itself locally in the right mamma soon after a severe blow on the part. For several years prior to the appearance of the cancer her health had been deteriorated by repeated hemorrhages from hemorrhoids. These had been successfully operated on by ligation about three months before commencing the Cundurango treatment."

DR. DOLE writes: "I can say but little concerning

the action of cundurango, as most of the effects were negative. It was administered in the form of a decoction (each dose representing what virtue could be thus extracted from exactly eighty grains of the powdered wood and bark), given twice a day, at 8 o'clock A.M. and P.M., two hours after food. You will remember Mrs. W.'s condition when she left New York. The following changes took place: 1st. The third day of administration she reported (unasked) entire freedom from pain in the nodule under the nipple of the *left* breast, which, up to that time, had been for weeks the seat of severe and constant lancinating pain. This pain never returned. 2d. On the fifth day healthy granulations appeared at the edges of the sore, finally springing up in all parts of it, the whole surface presenting from that time a normal appearance: the right arm could be moved with more freedom. 3d. The constitutional symptoms not modified; appetite, pulse, respiration, and temperature remaining the same. Bowels somewhat more constipated, but not markedly so. The neuralgic pains continued with unabated severity during the whole time of administration, and were quieted by McMunn's Elixir Opii, given p. r. n. I noticed also the odor of perspiration, which was very marked and peculiar, like the odor emitted from an uncut cavalry; odor of urine strong, but not unlike that of urine in many acute diseases. After each dose of the medicine (at an interval of from 15 to 30 minutes) a peculiar restlessness showed itself, which continued from two to three hours.

SUMMARY.—Medicine continued seventeen days—a decoction representing 160 grains by weight per day; total relief of pain in left breast; improvement in character of sore, and increase in power of right arm, with partial restoration of power of motion without pain. Noticeable change in odor of perspiration, and a peculiar restlessness following the administration of dose. Should say I witnessed this phenomenon fifteen times. Constitutional effect *nil*. The appetite gradually failed, but not more rapidly than could be accounted for by the discontinuance of tonics. In conclusion, Doctor, allow me to say, I am very sceptical concerning the power of this remedy, but there was a curious coincidence between its administration and the modification of local symptoms. I tried to guard against any hasty conclusions in the matter. I have hope enough in its power to try it again in a case where the constitutional power was greater than in the case of Mrs. W. The exhibition was stopped eight days before her death; but I was absent, and cannot report on the effects of the change. Dr. B. assures me that the sore continued healthy until death.

DR. F. A. BURRALL, of New York, reports, July 10th: I have been using an infusion of cundurango prepared according to the official formula in a case of rodent ulcer, or, as the disease is termed by C. S. Moore, F.R.C.S., rodent cancer. The ulceration occupied the helix and posterior portion of the right external ear, and the adjacent part of the scalp. The patient had previously been using a lotion of a watery solution of carbolic acid, tannin, and glycerine, and the lotion was continued. During the six weeks which were necessary for a trial of the cundurango the ulceration progressed slowly but steadily. No marked general symptoms accompanied the use of the medicine.

DR. H. B. SANDS, of New York, writes July, 15th: My experience in the treatment of cancer by the cundurango plant is confined to a single case in which the remedy was administered according to the prescribed directions for a fortnight. The patient, a lady residing in this city, suffers from cancer of the rectum, and at the time she began to take the medicine referred to the disease was already far advanced, causing a pretty close stricture of the gut. It was noticed that during the brief period the cundurango was used the cancerous growth increased with greater rapidity than at any previous time, and several large nodules of the morbid deposit appeared in the pelvis, causing a protrusion of the abdominal walls. The patient is still living, and intends to make another trial of the remedy whenever it can be obtained.

In conclusion, the Committee do not consider the exaggerated pretentions claimed for the cundurango plant as a cure for cancer substantiated by the results of the trials herein reported. They would not, however, discourage more extensive and thorough trials of its virtues, especially if such trials could be prosecuted without enlisting popular sympathy, which has already been prematurely evoked, and that without at all promoting the attainment of truth.

GURDON BUCK, M.D.
T. M. MARKOE, M. D., vice
W. H. DRAPER, M.D., absent.

} Com. of Physicians and Surgeons, N. Y. Hospital.

NEW YORK, July 26th, 1871.

The report can speak for itself. We cannot say how many similar documents are kept from the medical public, neither can we do more than conjecture the motives actuating the powers that be; but we have a right, in the interest of truth, to invite all who have tried the remedy to publish their results without delay. We open our columns to such, and may be able to satisfy the suspicions of the profession, long before the Honorable Secretary may have accumulated what in his opinion may be sufficient material to make his official report valuable.

Reviews and Notices of Books.

TWENTY-SEVENTH ANNUAL REPORT OF THE MANAGERS OF THE NEW YORK STATE LUNATIC ASYLUM. Albany, 1870.

IN the professional part of their Report the view of insanity as a bodily disease, easily curable in its early stages by medical treatment, is strongly insisted upon. If this theory were urged only to encourage the sending of patients to asylums at the earliest possible period, we should hardly care to criticise it. Representations which would fall under the ban of medical ethics, if used for personal ends, are conventionally proper when made in behalf of public institutions. But the only serious argument for the policy of placing all the insane in asylums built and organized as hospitals has no other foundation. When all can be placed under treatment in such hospitals, it is claimed the sources of chronic lunacy will be dried up, and a great burden and reproach to the community removed. Now, to prove such a policy mistaken, it should be enough to say that the experience of every civilized community condemns it. If it were correct, we ought to find a reduction of the numbers of the chronic insane in proportion to the increase of asylums; but the fact is, the burden of chronic insanity has grown heavier in a direct ratio to this increase.

In England, where the policy of hospital asylums has been carried to twice the relative extent reached in this country, there has been a steady increase in the number of incurables. So plain is the inference, that no European writer now believes an exclusive system of

hospital asylums either possible or desirable to be realized.

And yet the argument for such a system is based upon the statistics of these asylums. From 70 to 90 per cent. of recoveries having been reported *in recent cases*, it has been boldly assumed that these recoveries were wholly due to asylum treatment, and that all cases of insanity might be cured in like proportion. Thus Dr. Thurnam, an English alienist, writes: "Of a certain number of cases brought under asylum treatment within three months of the attack of insanity, 80 per cent., or four-fifths, were restored." Dr. Gray not only grasps at the inference, but substitutes it for the facts. He says: "Dr. Thurnam, a distinguished writer on the subject, states that if cases were treated within three months of the first attack, four-fifths would recover; but if twelve months elapsed four-fifths were incurable, and so in proportion as the term was longer or shorter." How entirely fallacious this inference is, may easily be shown. The cases referred to were placed in an asylum for the reason that they were dangerous, or needed special care. What warrant was there for classifying them together as one disease for scientific purposes? In fact, they differed among themselves very widely in their nature. Those whose mental disorder dated back "three months or less," were cases of the type of delirium. Some exhibited the delirium of alcoholic, puerperal, and similar forms of blood-poisoning, in persons of an insane temperament. Others presented simple paroxysms of maniacal excitement from moral causes. These attacks are sudden and violent, making it necessary to send the patient at once to an asylum: but they are transient, and he is quickly in a condition to be discharged. On the other hand, those patients brought to the asylum "after a year or more of their disorder," were cases of insanity proper. The technical insanity of medicine, it should be remarked, is, by its definition, a chronic disorder, and it is chronic not only in its fully developed stage, but in its stage of invasion. Most of these cases never exhibited any acute stage. They were never "recent cases," in any practical sense. It was never possible to have brought them to an asylum "within three months of the date of their attack." Their insanity came on almost imperceptibly, and different observers might differ several months, and even years, as to when it began. Now, a large majority of the patients of asylums are of this class, and nine-tenths of their number, from the first, gave no reasonable hope of recovery.

That the recoveries from mental disorder, of whatever type, are due to medical treatment, must also be considered an unauthorized conclusion. The theory of insanity as a bodily disease really represents as yet no practical truth. It is strictly entitled to mean only that the most hopeful mode of studying insanity is in its relations and analogies with bodily disease. In a technical sense, of course, it is wholly incorrect. Those cases alone in which no bodily disease can be found to account for the mental disorder are classified in medicine as insanity. And it is clearly false as implying that we have any such knowledge of the pathology and therapeutics of insanity as we have of bodily diseases. The necessary antecedent of this knowledge, cerebral physiology, is as yet nearly a blank for us. As Maudsley says, "We are only on the threshold of the study of the nervous system as an instrument subserving mental function. We know little more positively than that it has such function; we know nothing whatever of the physics and of the chemistry of thought." We need hardly say, then, that no plan of medical treatment is even proposed for any of the forms of mental disorder, while the practice of empirical medication in them is strongly condemned by the best authorities.

Another matter noticed in the Report is that of the cost, to the public, of patients in asylums. The hospital system is defended by Dr. Gray, not only from the curative point of view, but on account of its direct economy. In a pamphlet written in 1868 by Dr. Chapin, of the Willard Asylum at Ovid, the average weekly cost of support in several asylums lying in adjacent States was given in a tabular form, and as the cost at the Utica Asylum chanced to be greatest of all, it was put at the bottom of the column. This table Dr. Gray copies into his report, and remarks: "It will be observed that Utica is the base of the cone! This pamphlet purports to be a Report of a Committee of the American Medical Association. A similar report by Dr. Charles A. Lee makes the weekly charge at Utica $5.53; at Harrisburg $4.38, and at Northampton $4.78. Neither of these statements (*sic*) are correct as regards Utica, whatever may be the facts touching the other institutions mentioned. Public institutions can well bear the discussions of the questions of expense of the care of the dependent." Now, a moment's examination of the comparative cost at these three institutions may be pardoned. Since our former calculation, more perfect details of the expenditures of the Utica Asylum have been published in the Report of the Board of State Charities (N. Y.) for 1868. From the sum of these expenditures we, of course, omit the estimated value of "products of the Asylum farm and garden." It is customary to exclude the proceeds of the "plant," as it is termed, of a public institution in estimating its current expenses. A small item of "cash refunded patients on leaving" is also to be thrown out. Next comes the large item of "buildings and repairs," including perhaps something which may be construed as "extraordinary" expenditures. Here, however, we are left uncertain. How prone to confusion upon this point of "ordinary," and "extraordinary" expenditures are all kinds of financial statements, from ministers' budgets to housekeepers' accounts, it is needless to say. But from their nature, and from the custom of asylums, there can be no doubt that all the remaining items belong in the calculation. Well; omitting all those named, the weekly cost per patient at Utica amounts to $5.45; adding the item of "buildings and repairs," this cost is $6.50. The weekly cost reported by Dr. Gray is $4.72. To reach this figure it is necessary not only to exclude the entire expense of "buildings and repairs" from the calculation, but several other items also, amounting in the whole to $54,341. The weekly cost at the Northampton Hospital for the Insane for 1868—including all the items omitted by Dr. Gray, except less than half that for "buildings and repairs," rejected as "extraordinary"—was $3.99. At the Harrisburg Asylum (Pa.) for the same year, the cost was $4.82, including both ordinary and extraordinary expenses, and all the other items. Finally, it appears that the expenditures of the Utica Asylum for 1868 were more than eighty thousand ($80,000), or 70 per cent. greater than those of the three Massachusetts hospitals for an equal number of patients!

It is by representations like these, skilfully urged in annual asylum reports, that the main efforts to improve the condition of the insane in this country have so long been directed in behalf of a system of close asylums for all. That an unreasonable devotion to this system is, in a great degree, responsible for the abuse and neglect which a majority of the insane in the United States still suffer, we cannot doubt. We freely admit that for a given proportion of this class the hospital asylum is all that can be desired, and that it should

remain the crowning grace of lunacy provision. Yet, if it is to remain, the policy of which Dr. Gray is one of the foremost advocates, cannot be too soon abandoned. The current of professional opinion, abroad and at home, is opposed to it. In France, Germany, and Great Britain the mammoth asylums are confessed to be the most serious obstacles to a proper system of *provision for all the insane*. The Massachusetts Board of Charities, in one of its last reports, likewise expresses the wish that only *one* instead of *three* State Hospitals had been established in that State as ample for hospital purposes. We are led to hope, indeed, that the question is already settled, in principle, at least, in this State; inasmuch as our Board of State Charities, in their Special Report to the Legislature of March 9, take the ground that the present and proposed State Asylums, when finished, will have a capacity "largely in excess of the present requirements" for hospital purposes.

We regard the appointment of a special pathologist at Utica, to utilize the pathological *matériel* as it occurs in the establishment, as a measure promising most important results; inasmuch as the clerical and other unprofessional duties of the superintendent must preclude all possibility, on his part, of pursuing such researches to any extent. But we should hail it as a still more important improvement if the medical staff was increased to that degree as to prevent the lunatics from losing their *individuality*, so that they might not be treated *en masse*, as they must be where 600 patients, laboring under *physical* and consequent *mental* disease, are placed under the medical care of two physicians. Nothing is more evident, even to the most superficial observation, than that each case ought to be studied separately, each patient *individually* considered; and that much time and study must be devoted to physiology, pathology, pathogeny, and etiology, in their relation to diseases implicating the functions of the brain, by those who have the management of this class of diseases, if they wish to keep abreast of the science of the day; and especially if they expect to add anything to our knowledge of disorders of the mind. With the exception of a class of chronic cases long past recovery, and who would be far better off out of an asylum than in it, a careful examination should be made daily of the physical condition of each patient; an accurate history kept of the progress of the case, and in all respects the symptoms as carefully studied and noted as in the clinical wards of an ordinary hospital. Why should they not be? The diseases are not less complex in lunatic asylums; they certainly are far more obscure, and require more time and study in their investigation. What can two men do, in an asylum of 600 patients, towards carrying out any efficient or sufficient system of physical and moral treatment?

The *moral* treatment, as has been well said, is much more physical than is generally supposed, and simply means the recognition by the patient of a disagreeable condition of inferiority to those not socially his superiors. What really influences recovery is purely physical—an improved hygienic condition, and a certain amount of medical treatment.

These remarks are equally applicable to nearly all our lunatic establishments, and in all of which the medical element is ridiculously weak in point of numbers.

TWENTY-EIGHTH ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM FOR THE YEAR 1870. Albany, 1871.

THIS pamphlet of 79 pages shows very completely the working of our State Asylum for the past year. On the 1st December, 1869, there were in the asylum 603 patients; during the year since elapsed there have been admitted 481, which shows, by comparison with former years, a continually increasing number of applications. The whole number under treatment during the same year was 1,084—of this number 153 were discharged recovered; 92 were discharged improved; 134 were discharged unimproved; 7 not insane, and 75 died. On the 30th of November, 1870, there were in the asylum 643 patients. The percentage of recoveries during the year was 31.80.

The whole number of patients admitted to the asylum since its opening is 9,706, of whom 3,725 recovered, and 1,471 were discharged improved; showing an average of *recovered* and *improved* of more than 50 per cent. We regret that these two classes were put together. For many reasons it is desirable to know, as near as possible, the exact number of cases cured; or, what is a far better term, *recovered*.

Improvements have been made in the buildings, so that 100 additional patients can now be accommodated; with the two additional wings added, the establishment can now accommodate 600 patients, though the building was originally designed for 500. The report does not enable us to estimate the cost of board and maintenance per week, inasmuch as under this head are included medicines, attendance, fuel, furniture, washing, salary of chaplain, apothecary, and book-keeper, and all wages of laborers within the buildings and on the grounds and farm. We see no propriety in including several of these items in the cost of maintenance. The total amount of expenditures for the year, including additions, alterations, and repairs ($21,205), is $226,068; $17,077 remaining to new account.

A large portion of the report is taken up with individual histories of patients, with autopsic examinations made by the special pathologist, Edward R. Hun. The number is too few to admit of generalization. We have, however, a tabulated report of analyses of urine of patients in the asylum during the year, from which some useful conclusions are drawn. For instance, not a single case of albuminuria or Bright's disease was detected in the analyses of the urine of 500 patients; nor is a diabetic condition of the urine recorded in a single instance in the same number of analyses, although the test for sugar was applied in all cases where the specific gravity reached 10.30. The abnormal appearance most worthy of notice is the great frequency of deposits of crystals of oxalate of lime. An excess of phosphates was found in a large number of instances; but no *quantitative* analysis seems to have been made. The different forms of mania were not characterized by any special alterations in the urine. As yet we fail to discover any very important results from the labors of the special pathologist; but it is very desirable that the pathological appearances in all fatal cases of insanity should be carefully observed and faithfully recorded and tabulated, in connection with the symptoms during life. When a sufficiently large number of such observations have been made, very valuable results may doubtless be obtained. Hitherto our lunatic asylums have failed to contribute anything very important to the pathology of insanity. This effort is in the right direction, and much credit is due to Dr. Gray for instituting the movement.

INSANITY: ITS DEPENDENCE ON PHYSICAL DISEASE. By JOHN P. GRAY, M.D. Read before the State Medical Society, February, 1871, pp. 96.

DR. GRAY states, that from an experience of over twenty years, during which he has had charge of the insane, a *physical cause* of the disease was found, where full and reliable information could be obtained, and that some

diseased condition of the body outside of the brain generally preceded the cerebral symptoms, and consequent insanity. The late Dr. Brigham, with Pinel, Esquirol, Georget, and most of the early writers on this class of diseases, believed that moral causes were far more operative than physical in producing them; but of late most alienists, both at home and abroad, give a large preponderance to the latter. The fact is, it is quite impossible, as a general rule, to discriminate them with exactness. For example, suppose some hereditary taint exists, giving rise to some defect or peculiarity of character, unless there be some manifest defective development of the brain in consequence, it would be, perhaps, as correct to assign the cause as moral as physical. But it is impossible to deny that such peculiarities or vices of disposition may not be owing to abnormal physical conditions of the brain. In reality we have reason to believe that all moral causes operate through physical changes produced in the brain. Life, as has been well observed, in all its forms, physical or mental, morbid or healthy, is only a relation; its phenomena result from the reciprocal action of an individual action and external forces; health, as the consequence and evidence of a successful adaptation to the conditions of existence, implies the preservation, well-being, and development of the organism; while disease marks a failure in organic adaptation to external conditions, and leads, therefore, to disorder, decay, and death.

If this be so, the harmonious relation between the organism and the external world, the condition of mental and bodily health, may be disturbed either by a physical cause in the organism, or by a moral cause in the external circumstances; or, which is probably more frequent still, by a concurrence of causes, arising partly from one and partly from the other. Let us suppose, for example, that anxiety or grief, produced by loss of property or friends, has evidently led to insanity; there has evidently been some inherent infirmity of nervous element co-operating; for in most individuals no such result would have followed. The nervous system would probably have been in a state of sufficient soundness, or been in possession of sufficient reserve power, as to adapt itself, within certain limits, to the varying external condition; so that the relation would not be morbidly disturbed, or mental disease initiated. We therefore deem it, in many cases, impossible to discriminate between moral and physical causes of insanity, nor do we consider it conducive to exact knowledge to attempt to show the exact line between them. The Creator only of both body and soul—spirit and mind—knows the mysterious laws which bind them together; and hence we can hardly agree with our author in saying, that "we believe that physical knowledge will so advance, that every process in the complex phenomena of physical life, in health and disease, shall be read and revealed and understood." Still it is very true, that mental diseases should be studied, like all others, through physiology and pathology, and that the observation of physical lesions is of vast importance. It is important, however, to bear in mind, that the visible pathological changes in nervous matter are rather to be regarded in the light of *effects* than *causes*, of long-continued functional disturbances demonstrated by morbid conduct and morbid feelings rather than morbid autopsic appearances.

We must also express our doubt in regard to the truth of another statement of our author's, and that is, that "the vast multitude of chronic cases is owing to the lack of recognition of the fact, that organic changes in the brain are likely to occur very soon after the first functional action is set up." There are, by no means, sufficient pathological facts on record to sustain such a conclusion. Patients do not often die in the early stages of insanity, and when they have done so, few careful autopsic examinations have been made. Besides, our author has elsewhere very positively, if not truly, attributed the multiplication of such cases to other causes, as lack of early treatment in insane hospitals, etc.

The work is, on the whole, creditable to Dr. Gray, and may be read by the profession with pleasure and profit.

A Treatise on Diseases of the Nervous System. By William A. Hammond, M.D. D. Appleton & Co. 1871.

A good work on diseases of the nervous system has been needed long enough, and if the present treatise does not fully realize our ideal of what a work on this subject ought to be, it does at least indicate a progress in this department—a development in the pathology, diagnosis, and therapeutics of nervous diseases, and cannot fail to be of positive value, even to those who are most ready to see its shortcomings. In some respects the work is not fully up to the very latest experience; it does fail to do full credit to all the laborers in this department; it is very far from being complete, but it is in advance of any other single volume that we have.

The pathological arrangement of the diseases which the author has adopted has the advantage of clearness and method, but the very great disadvantage of being oftentimes undemonstrative and undemonstrable. It has compelled the author to strain analogies and over-estimate symptoms, and, what is worse, to overlook facts and opinions that are opposed to his own.

In the chapter on aphasia the author appears at his best. It is the clearest presentation that has yet been given of the subject, and we are pleased to see a well-deserved tribute to the founders of phrenology.

Altogether too much stress is laid on the vascular condition of the central nervous system; and throughout the work it is implied that the diagnosis of *congestion* or *anæmia* is sufficient for the pathologist or the therapeutist. Aside from the enormous difficulties in the way of ascertaining in many patients whether the brain or spinal cord is very slightly congested or very slightly anæmic, even with all the aid of experienced ophthalmologists, there is no telling just what relation anæmia or congestion bears to the pathology of many of the diseases of the nervous system.

The results of treatment will not settle the question, at least in difficult cases. The profession will demand better evidence than has yet been afforded by Dr. Brown-Séquard, or by his followers, of the power of ergot to reduce hyperæmia of the cord, and the present volume does not give additional evidence sufficient to convince an honest inquirer. It is more than probable that it does have some such effect in some cases, especially when given in large doses; but the positive demonstration of this influence in actual cases of disease of the cord is oftentimes impossible. It fails utterly in cases of spinal congestion, when other remedies, as phosphorus, iron, and cod-liver oil, are somewhat successful. We should be glad to have the subject studied clinically and with greater care than has yet been given to it.

There is no doubt that cases of spinal congestion recover or improve while taking ergot alone; but such cases oftentimes improve and recover without any treatment whatever, under general tonic and hygienic influences, especially if they are used in time.

Beyond measure we are amazed that Dr. Hammond should claim to have been the first to demonstrate, in 1861, the action of ergot in causing contraction of blood-vessels, for it is well known that Brown-Séquard, in his lectures delivered in 1858–1859, and published in 1861, called professional attention to this, stating that he had performed numerous experiments on animals with ergot, and had very carefully studied its effects on different tissues. Crichton Browne, who has recently experimented with ergot in the treatment of insanity, acknowledges his indebtedness for the suggestion to the writings of Brown-Séquard, and his veracity in that regard has not been questioned.

The first part of the chapter on insanity is admirable, but the attempt to represent the different phases of insanity by photographs is a serious mistake. That the insane reveal their insanity in their faces all will admit; but the symptoms in the countenance by which we judge of the sanity or insanity of any one are not fixed, but evanescent. They consist in the play of the features, in the varying expressions of the eye, which can no more be photographed than a streak of lightning. The features of the insane, when fixed and placid, are in no sense diagnostic of the morbid condition of the brain. Dr. Hammond has been driven to form a history to some of his cases to suit the photographs, and if we are to judge by the photographs, has read them wrongly and absurdly. In fig. 15, p. 369, one might honestly doubt just what emotion was depicted by the blank and expressionless photograph; but "apprehension and terror" are precisely the emotions that it does not reveal. In fig. 12, p. 350, the photograph does not correspond with the description.

The chapter on spinal irritation is very interesting, and if rightly studied can be made of great practical value. The assigned pathology is doubtful and undemonstrable. We have no right, until we know more of the subject, to classify it as anæmia of the cord.

The treatment recommended is judicious, but the prognosis is not so good as the author represents. Spinal irritation is a very coquettish disease; it comes and goes like the clouds of summer. "Cured" is a very strong word to apply to it. Those who carry out the excellent plan of treatment the author recommends will be sure not to get anything like the results he claims. They will meet with a larger proportion of failures; they will find many improve, and very rapidly, and then easily fall back into the weak and beggarly elements. Without any treatment whatever, patients with spinal irritation may temporarily recover at a day's notice.

The chapters on sclerosis are excellent presentations of the pathology of the subject, and the distinction between the different varieties of palsy agitans is well drawn; but here, and indeed throughout the work, some of the cases are manifestly strained to suit the pathology. The author fails to consider that diseases of the nervous system are sharply defined only in a minority of cases. It would be very pleasant if patients would always have just those symptoms, and no more, that will serve to classify them under some well-recognized affection; but disease is not thus accommodating.

Disease of the anterior and posterior columns of the cord, and probably also of the sympathetic, and the various morbid conditions of the brain, are frequently complicated, dove-tailed together, and no mortal who derives his inspiration from a lower source than Heaven itself can tell just what special name to give them. They belong to the army of the great unclassified.

Of the classes into which physicians are divided—those who have too little and those who have too much faith in medicine, Dr. Hammond certainly belongs to the latter.

He forgets that serious symptoms of nervous disease do sometimes disappear under time and hygiene, and in spite of medicine; and he does not give due stress to the fact that general sustaining treatment is oftentimes of very great service, even when no special medication is employed.

The author recommends electricity, either as an adjuvant or sole dependence, for nearly every disease.

Many important diseases of the nervous system, that are frequently met with in practice, receive no mention, which is especially unfortunate, from the fact that no exhaustive treatise on diseases of the nervous system is now in the market.

The leading merit of the work—and in a department which, like neurology, has been fearfully bemuddled, a merit that cannot be over-estimated—is its clearness. Apart from the quotations and errors of type, there is not a muddy sentence in it. When he is right, he is clearly right; when he is wrong, he is clearly wrong.

The leading fault of the work—and in an age like the present, when candor and caution count for more than statement, and are indispensable for those who seek for the highest in science—a very grave fault is *over-positiveness*, amounting to recklessness. This tendency appears at its worst in a branch which, like neurology, is young and growing, and which, like some animals, every year casts off its skin. If the author had taken his inspiration less from the French—of whom Goethe once said, "if a thing is not positive, they make it so"—and more from the English, and especially from Darwin, he would have done more wisely and made a better and more convincing book. An indiscriminate sprinkling of "probably," and "it may be," and "perhaps," would have helped the work wonderfully among all mature and thoughtful minds. The secret of success for a scientific writer of our times consists in a frequent use of the subjunctive mood.

The statements made in this work, that galvanization of the sympathetic causes contraction of the vessels of the brain; that the question of anæmia or congestion of the spinal cord can be settled by an injection of strychnia; that the condition of the retina, as shown by the ophthalmoscope, indicates the condition of the brain; that hydrate of chloral—one of the greatest medical discoveries of modern times—is a dangerous remedy, have a basis of truth; but as here put, without due qualification, they are false and misleading.

The closing chapter on neuralgia is unworthy of the work; it is written as though by one out of breath. Five times the space and care should have been given to it; for at present there is no good treatise on the subject in the English language, and Anstie's work, which will surely be good, is a very long time on the stocks.

The section of the work devoted to diseases of the peripheral nerves is also exceedingly incomplete and unsatisfactory.

The City of Suicides.—The ratio of suicides has been established by Mr. Decaisne recently, before the French Academy of Sciences. It is, in London, one in 175 deaths; in New York, one in 172; in Vienna, one in 160; but in Paris it has reached one in 72. The number of suicides from drunkenness, which in 1848 was 141 for all France, reached 401 in 1866.—*British Med. Journal.*

Cases of Ovariotomy.—Dr. Washington L. Atlee, of Philadelphia (*Am. Journ. Med. Sciences*), has published 222 cases of ovariotomy which were performed under his own eye.

Reports of Societies.

[*Official.*]

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, September 13, 1871.

DR. A. L. LOOMIS, PRESIDENT, in the Chair.

EXTENSIVE SYPHILITIC DEGENERATION OF SKIN OF FOREARM, AND AMPUTATION.

DR. FINNELL presented the arm and forearm, removed by amputation, from a female patient of St. Vincent's Hospital. The limb was the subject of extensive syphilitic ulceration of the integuments, particularly of forearm and hand, the middle and ring fingers of which, from a large ulcer on their dorsal aspects, were firmly contracted. The elbow, from the same cause, was fixed at an acute angle. The disease had affected the parts for two years; and showing a tendency to increase despite treatment, the request of the patient to have the limb removed was granted. The incision was the ordinary circular one, and was made a short distance above the elbow. The operation was performed on Monday, and the patient was doing well, the stump being dressed with a mixture of carbolic acid, sweet oil, and chalk. This patient was thirty years of age.

HYPERTROPHY OF LEFT VENTRICLE AND ATROPHIED KIDNEY.

A series of specimens, consisting of heart and kidneys removed from a man of 45. The latter organs were much below the normal size, weighing respectively two and two and a half ounces; were markedly granular, and contained cysts averaging in size from a millet seed to a good-sized grape. The heart showed simple hypertrophy, with dilatation, and weighed twenty ounces. There was also cirrhosis of the liver. The patient during life suffered from the ordinary symptoms of Bright's Kidney. The cardiac disease was supposed to be due to the existence of the renal affection. The immediate cause of death was suicide by a pistol-shot wound of the brain. Lying in the apex of the lung, and simply embedded in its tissue, was a small buck-shot.

DR. HOWARD remarked that inasmuch as the missile had been deeply indented, it must have first struck some hard substance, such as one of the ribs.

DR. NOYES thought that the patient might have been struck by a stray duck-shot.

DR. LOOMIS stated that hypertrophy of the left ventricle with atrophied kidney was the rule rather than the exception. He is always in the habit, when he finds a case of chronic Bright's disease, of turning his attention to the heart, and seldom if ever fails to find hypertrophy of the left ventricle.

THE EFFECTS OF ABORTION.—THE "TRUNK MYSTERY."

DR FINNELL also exhibited the uterus and appendages taken from the body of a young woman, Alice Bowlsby, who died by abortion. The case was the one associated with "the great trunk mystery." The young woman, finding herself pregnant, came to New York to have an abortion produced. She entered the house of one Rosensweig, who performed some operation upon her which resulted in her death. She left her home on Wednesday, and probably on the same day the abortion was produced. On the following Saturday evening her remains were found packed in a trunk at the Hudson River Railroad depot, checked for Chicago. The autopsy was made by Dr. Cushman, to whom Dr F. was indebted for the specimen. The body was far advanced in decomposition. On opening the abdominal cavity there were marked evidences of metro-peritonitis; the uterus was enlarged, and gave other signs of having contained a fœtus; the mucous membrane of the cervical canal was torn in several places, as if by some blunt instrument. He, Dr. F, thought it rather remarkable that death should have occurred so rapidly in this case, and that decomposition should have been so far advanced so short a time after the operation.

DR. ROGERS remarked that the facts connected with this case were curious and interesting. This young woman was said to have left her home on the afternoon of the 23d; that while her mother went home, she took a détour to New York. Nothing more was heard of her until Saturday, the 26th—three days after. She was found in that trunk in such a state of decomposition as to attract the attention of the people employed in the depot. It would seem that she must have been dead at least 24 hours to have arrived at that state of decomposition. Supposing the operation was performed on the night of her arrival, she must have died on the morning of the 25th, to have given time for the decomposition to have advanced. It was altogether probable that she died within 24 hours after the operation, and taking that apparent fact in connection with the alleged cause of death—metro-peritonitis—it made a very unusual case, more especially when the lacerated condition of the tissues about the neck of the uterus was taken into consideration. The question might be agitated whether the woman did not die during the operation, from mere shock, or whether it were not possible that a uterine had been opened and air entered the circulation.

DR. CARO suggested that she might have died of hemorrhage.

DR. CASTLE remarked, that on the Monday following the discovery of the trunk with the remains of Alice Bowlsby, he made an autopsy of a female who had died after the removal of an abdominal tumor, and although only six hours had elapsed since death, the body was in a very advanced state of decomposition.

DR. FINNELL stated that there was a marked difference in the rate of decomposition in different cases, and referred, in passing, to one of chloral poisoning, in which in a few hours after death the flesh fell in pieces from the bone.

NEURALGIA OF EXTREMITY FROM INJURY OF SPINAL CORD?

DR. CARO presented the bones of the forearm removed by amputation from a young man, who suffered a compound complicated fracture of the radius and ulna, the result of the premature explosion of a cannon. It was necessary to amputate the thumb immediately afterwards. In consequence of the earnest solicitations of the patient, an attempt was made to save the arm, and it was supported in the usual way by splints. Three weeks after the accident the patient began to complain of severe pain, particularly in the little and ring fingers. At the end of a month he came from his home in Massachusetts to this city to consult Dr. Caro. At that time it was found that the bones had not united. Drs. Sands and Seguin were called in consultation. Dr. Caro believed the ulnar nerve to be injured. The pain could be controlled for a time by anodynes, but each in its turn lost its effects after being employed for a time. Morphine, chloral, chloroform, and bromide of potassium were respectively employed, and were repeatedly substituted for one another. Drs. Rogers, Gouley, and Hamilton also saw the case at different times in consultation. It was finally decided to amputate; but the relief of the pain was only temporary, and although the wound was

healing nicely, it was still necessary to keep up full doses of the anodynes.

Dr. Noyes asked if electricity had been employed.

Dr. Caro answered that such treatment had been suggested, but that Dr. Seguin had concluded that it would be useless.

Dr. Caro, in answer to a question, stated that there was no tenderness along the spinal column.

Dr. Castle remarked that the case brought to his mind some investigations of Brown-Séquard relative to the influence which irritable stumps had in inducing changes in the white substance of the cord. The length of time in Dr. Caro's case, between the reception of the injury and the supposed appearance of changes in the cord was, however, much shorter than any cited by Brown-Séquard.

EXTENSIVE NECROSIS OF THE TIBIA—AMPUTATION.

Dr. Howard presented an extensive necrosis of the tibia, with partial anchylosis of ankle, removed by amputation of the leg, from a man aged 30 years, who presented himself at the clinic of the University of Vermont, fifteen years after having, as he expressed it, taken a cold in the leg. The disease went through its ordinary course, sinuses formed, principally on the posterior of the leg, and the patient was reduced to the last stages of attenuation in consequence. Amputation was decided upon to preserve his life. After dissection a large sequestrum was found in the tibia. The ankle-joint was completely anchylosed.

Dr. Post thought that the formation of sinuses on the posterior aspect of the tibia was perhaps unique. He at least had never seen a similar case. He thought that under ordinary circumstances, especially when the joint, as in the present instance, was destroyed, the dead bone might have been removed and the leg left intact.

The Society then went into Executive Session.

Correspondence.

THE CRIME OF ABORTION.—A NOTE FROM DR. CUTTER, OF NEWARK, N. J.

To the Editor of the Medical Record.

Sir:—In a recent issue of the Medical Record is an article in which you say I have been expelled from the "Essex County Medical Society," and add that you are not aware of the circumstances attending my expulsion, but assume that the grounds for action were judiciously taken; and further you speak of maudlin sympathy being expressed for me, and professional jealousy assigned as one of the causes. You also allude to newspaper paragraphs in which it is said that strong efforts are being made to expel me from the New York Pathological Society, and hint at my being indirectly the cause of their appearance. My object in writing this is to correct some errors that appear in said article, and to endeavor to set myself right in this matter. I would state that the newspaper paragraphs were not authorized by me, nor were any published at my request, I being entirely ignorant of them till my attention was called to them.

As regards your statement that I was expelled from the "Essex County Medical Society,"—it was not the "Essex Co. Med. Society," but the "Essex Medical Union," a local social organization. My resignation was tendered the Society, which they refused to accept, and their prerogative I do not question.

No one can feel more keenly the unfortunate position in which I was placed, nor can one regret it more deeply.

"Those who have had appeals made to their sympathy require a strong resolution to follow the dictates of duty."

Respectfully yours,

James B. Cutter, M.D.

884 Broad st., Newark, N. J.

We owe it to Dr. Cutter to state that the delay in the appearance of this note has been due to the fact that until the present, we have not been able to find room for it. As an explanation, the communication must stand on its own merits.—Ed.

THE INHALATION OF OXYGEN GAS IN CHOLERA.

To the Editor of the Medical Record.

Dear Sir:—Several years ago I called attention to the use of the remedy mentioned above in Asiatic cholera. Letters were addressed to the various Boards of Health, and to many of my friends in the profession, but nothing came of it, except the opinion, pretty unanimously expressed, that it would very likely be found to be a good thing, and that it had been suggested before. At that time there were various difficulties in the way of its application, but now these have been lessened. In the large cities oxygen gas is carried about for every-day consumption, and can be obtained as easily as air. In smaller places, the necessary salts and the simple apparatus for their decomposition can be obtained by an express order. The value of the agent for the relief of some of the symptoms of this direful disease cannot be questioned. No one can doubt that the cold congestive stage will be mitigated, and if care be taken not to heighten the subsequent febrile reaction, the mortality will assuredly be lessened.

I trust you will feel it your duty to call upon all public authorities having influence on sanitary questions, and upon the medical profession generally, to have all the necessary preparations made before the time shall arrive when the work must be done in a hurry.

Respectfully yours,

C. F. Heywood, M.D.

123 Madison Avenue.

THE PHENOMENA OF DEATH FROM STARVATION.

To the Editor of the Medical Record.

Sir:—A friend of mine was asked the following question at one of the recent examinations in London; and as it is a question which may be asked again, both there and in this city, I trouble you with the *question and answer*, which answer I cannot find either in Dalton, Draper, Kirke's, or Marshall's Physiology. If it is wrong, I would like one of our able professors in this city to enlighten many of the readers of your valuable paper. "What are the phenomena of death by starvation, and what is its immediate cause, as shown by the experiments of Chossât?" A desire for food, a peculiar sense of sinking referable to the gastric region, general faintness, secretion of gas into the stomach, and sometimes actual pain, and when these sensations are not relieved the process of destructive assimilation is the only source from whence the blood derives its materials of supply; general emaciation, the face grows lividly pale, the cheeks sunken, and the pupils become dilated and fixed in a wild stare, which is

never veiled by the eyelids; the movements of the body are slow and difficult, the voice grows feeble, and the mind weak; all the tissues show the effect of impaired nutrition in the deficient manifestation of their vital powers, the body loses weight, and this loss is most rapid the few days immediately preceding death; the tissue which wastes most is fat, and those which lose the least are the osseous and the nervous; there is a great loss of heat, the daily fall being about half a degree of Fahrenheit until the temperature is 75° or 77°; the stomach is much contracted, and its mucous membrane thrown into thick folds or rugæ, the gall-bladder full to distention, and the intestines contracted like the stomach; the respiratory movements become slow, and the pulse falls considerably in frequency: the urine becomes scanty, and when the loss of strength becomes considerable, furious delirium generally manifests itself. In man total privation of food is not borne above a week, although much depends upon the peculiar constitution, age, health, habits, etc.

Very respectfully,

HANS POWELL, M.D.

184 EAST BROADWAY, N. Y.

THE SUMMER COMPLAINTS OF CHILDREN.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR,—Your valuable paper of Sept. 15th 1871, contains a correspondence by Dr. Irving C. Rosse, entitled "Specific Treatment for Summer Complaint of Children," in which the correspondent congratulates himself upon his success in using the Bromide of Potassium. Allow me to make the remark, that with the same sincerity some other physician might recommend the carbonate of potash, and still another swear by the oily emulsions mixed with opiates.

In my humble opinion the chief cause for the great mortality from summer complaint exists in the fact, that the different physicians have their *specifics* for summer complaint. We may have specifics for diseases, but it is dangerous and often ruinous to apply a specific to a whole class. As long as summer complaint is erroneously considered a disease, instead of a class of diseases, there will be no abatement of its great mortality.

Very respectfully,

EMIL STEIGER, M.D.

PRAIRIE DU CHIEN, WIS.

PRACTICAL REMARKS ON TREATMENT OF SUFFOCATIVE CAPILLARY BRONCHITIS.

MR. EDITOR:—Some time since, having had occasion to notice in a late number of the *Medical Gazette* some allusion (contained in an article emanating from the able pen of Dr. Roberts, vice-president of the New York Academy of Medicine) to the often fatal results of capillary bronchitis in children, the importance of the subject induces me to ask of your kindness the insertion of a few practical remarks in reference to its treatment. I have generally noticed this disease from early infancy to puberty, but more frequently during the period of dentition. Its frequency during the early period of life (although by no means confined to it) is, I believe, attributed by some writers, such as Barthez, Billiet, and others, to a peculiar looseness of texture of the infantile mucous membrane, ever prone to an undue secretion of mucus, constituting the chief cause of danger in the disease under consideration.

The indications are indeed obvious to get rid of the mucous material as speedily as possible, and restrain the hypersecretion of the membrane, for the fulfilment of which the stimulating expectorants readily suggest themselves to the mind of the practitioner. Among that class of remedies, the sulphate of zinc and tincture of sanguinaria have, for the last twenty-five years, been my favorites, and rarely, if ever, in the hour of trial, have they failed me, either singly or collectively, aided in some obstinate cases by the application over the whole chest, and at suitable intervals, of Stocke's liniment.

With those simple means at my command, and close watching, I do not remember in a long series of years but one or two failures. To a child, say from six to eighteen months of age, I generally administer at the beginning of the disease from one-half to one grain of the sulphate, and from five to ten drops of the tincture every two or four hours; but when called at a later period, and especially when it threatens suffocation, as much as three of the former to thirty drops of the latter, from one-half to two hours apart, regardless of vomiting. In acute cases generally from four to eight hours suffice to put the patient out of danger.

As regards the effects of the above-named remedial agents on the adult mucous membrane, the following case will serve as an illustration:—

"In the afternoon of the 21st of October, 1866, I was requested to visit Dr. Steine, a German practitioner residing within a stone's throw of my office in Hoboken. Being at that time absent, I did not reach his bedside till near 10 P.M., and then found him in the following condition:—Insensible; dorsal decubitus, with shoulders propped on pillows; surface of body cold and clammy; face and extremities livid; eye fixed and insensible to light; pulse feeble and rapid; trachea and bronchial tubes full of mucus; in fine, in a state of collapse. From his numerous and distressed family, surrounding as it seemed to be his death-bed, I gleaned the following history:—That for about ten or twelve days past he had complained of a troublesome cold, for the relief of which he had sought the advice of one of his Teutonic colleagues residing in the city of New York, whose last prescription had been the application of cold wet towels to the chest. In compliance with this suggestion he gave it during the forenoon a fair trial, but soon after seemed to get worse, till the present urgent symptoms supervened. At first, impressed with the hopelessness of his condition, I was disposed to set aside any fruitless attempt and allow the patient to depart in peace, considering the unavailing efforts previously made by two or three of the more brilliant luminaries of the Hoboken medical fraternity; but, impelled to action by a crowd of anxious and beseeching relatives and friends, and bearing in mind the old aphorism, "*Melius est anceps remedium quam nullum*," I determined on a forlorn-hope trial of the effects of zinc and sanguinaria. I hastily sent for an eight-ounce mixture containing ℥ iv. of the sulphate and ℥ ij. of sanguinaria tincture, and ℥ vj. of water, and set about giving at first one-half and soon after a full tablespoon, every half-hour, of the mixture, which, on account of the torpid deglutition, I had great difficulty in getting down. I covered the patient *de novo* with warm mustard poultices, and put hot bottles about the body. By 12 M. the skin had lost a great deal of its icy and clammy coldness; pulse a shade better and more resisting; tried in vain the feather to the throat to excite vomiting, continuing the mixture as stated above. 3 A.M.—Pulse stronger, skin warmer; all at once patient made an effort as if wanting to vomit, which, aided with the feather and the lowering of his head over the bedside, brought to a successful issue the long-wished-for ob-

ject, and a quantity of frothy mucus was ejected with the contents of the stomach. He was soon after able to take and keep down brandy and beef-tea. Skin became warm and moist; pulse natural; mucous rattle soon disappeared, and by 4½ A.M. he fell into a quiet and apparently refreshing sleep. Left him then, and at my next visit, 9 A.M., had the satisfaction to shake hands with him, he sitting up in bed.

The recovery was so rapid that he was able in three or four days after to resume his practice. He was a man on the wrong side of fifty, and ultimately died, in a little over a year after, of apoplexy.

My purpose in publishing the above remarks has been to direct the attention of the profession towards the practical application of two remedial agents in a disease in which I fear great diversity of opinion has existed in reference to the period at which stimulating expectorants ought to be resorted to, and show that they cannot be used too soon, viewing the disease as more of a passive than active character.

As to the individual claim of the above-mentioned remedies, I may mention the sulphate of zinc as a prompt and stimulating emetic in an affection in which the vitality is fast ebbing, which ought, in my opinion, to occupy the foremost rank; and as regards sanguinaria, the experiments made by the late Professor R. P. Thomas, of Philadelphia, with the alkaloid (sanguinarine) on himself and others, go to prove that in moderate doses it has always acted (in his hands as the tincture has in mine) as a pure stimulating expectorant, and never exhibited narcotic or sedative properties, as Barton and Bigelow have taught us to believe. In my humble opinion, it is deserving of further investigations in the treatment of acute and chronic affections of the bronchial mucous membrane.

J. M. JULIAN, M.D.

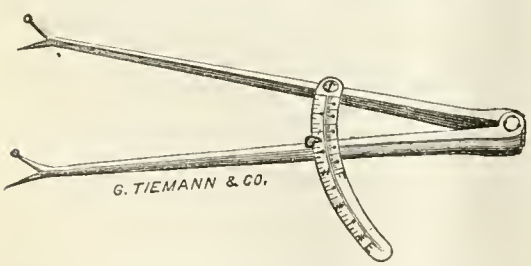
HOBOKEN, N. J.

New Instruments.

A MODIFICATION OF THE ÆSTHESIOMETER.

BY A. L. CARROLL, M.D.

THE subjoined illustration represents a form of æsthesiometer which Messrs. Tiemann and Co. have made at my suggestion, and which will, I think, be found convenient by those who are engaged in the study of nervous diseases. To apply the æsthesiometers now in use to the discrimination of tactile sensibility, as distinguished from sensibility to pain, it is commonly necessary to cover their sharp points with bits of cork or similar substances. There are, however, cases in which it is requisite to use the sharp points, either alone or in alternation, with blunted ones. The instrument now presented fulfils either indication, by means of its bifurcated extremities, so that by reversing it the blunted or the sharp points may be applied perpendicularly to the surface of the skin. The scale is marked both in millimeters and in fractions of an inch, to facilitate comparison with the records of English and of Continental observers.



I have adopted the general form of Dr. Hammond's æsthesiometer (which is itself a modification of Dr. Ogle's "diaphæmetric compass") rather than that of Dr. Sieveking, commonly known as Weber's, on account of its easier portability.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from September 5, 1871, to September 18, 1871, inclusive.

PETERS, DE WITT C., Surgeon.—By S. O. 337, War Department, A. G. O., Sept. 5, 1871, relieved from duty in Department of the Mo., to proceed to New York City, and upon arrival report by letter to the Surgeon-General.

WINNE, CHARLES K., Surgeon.—By S. O. 204, Department of Dakota, Sept. 7, 1871, assigned to duty at Fort Shaw, Mon. T.

MCELDERRY, H., Assistant Surgeon.—By S. O. 346, Headquarters of the Army, A. G. O., Sept. 4, 1871, granted leave of absence for four months.

CRONKHITE, H. M., Assistant Surgeon.—By S. O. 359, War Department, A. G. O., Sept. 14, 1871, granted leave of absence for three months.

GIRARD, A. C., Assistant Surgeon.—By S. O. 177, Department of Texas, August 29, 1871, assigned to duty at Fort Brown, Tex.

STEINMETZ, WM. R., Assistant Surgeon.—By S. O. 177, C. S., Department of Texas, assigned to duty at Fort Duncan, Tex.

HARVEY, P. F., Assistant Surgeon.—By S. O. 177, C. S., Department of Texas, assigned to duty at Ringgold Barracks, Tex.

Medical Items and News.

NEW SOURCE FOR BENZOIC ACID.—The urine of horses and cattle is utilized in Northern Prussia for the manufacture of benzoic acid. One house at Königsberg supplies the market from this source. The establishment makes 7,700 lbs. of benzoic acid annually, for which 3,850,000 lbs. of urine are required, not to speak of ship-loads of fuel to evaporate it. Benzoic acid is now chiefly used in the manufacture of a red color for woollen goods, and is also highly prized in making certain kinds of perfumery.—*The Med. Press and Circular.*

THE DEATH OF HYDE SALTER, M.D., F.R.S., is recently announced in the English journals. Dr. Salter had earned a well-deserved reputation by his writings on diseases of the thorax, especially asthma, from which disease he had for many years been a sufferer. The cause of his death is stated to have been pulmonary abscess.

PRIZE ESSAYS.—In accordance with the will of the late Dr. Lacaze, a prize of 10,000 *francs* is to be awarded by the Faculty of Medicine of Paris every second year to the best work on phthisis and on typhoid fever alternately. The first prize will be awarded at the end of the academical year 1871–2, for the best work on phthisis. Essays (with a distinguishing motto and the

author's name in a sealed envelope) must be sent in before July 1st, 1872. The prize is open to foreigners.

New Hampshire Asylum for the Insane.—The Thirtieth Annual Report of this asylum gives the following exhibit: During the year ending April 30, 1871, 388 persons were treated—192 men and 196 women. Of this number, 253 were patients at the opening of the year, May 1st, 1870, and 135 have been admitted since. The total daily average residence for the year has been two hundred and forty-two and eighty-two hundreths; the average of men being 119.8, and that of women 123.74. One hundred and thirty-one persons—66 men and 65 women—were discharged, in different states of mental health; and 32, 16 of each sex, died. The year closes with 225 patients, 82 men and 81 women. The recoveries were nearly forty-nine per cent. on the whole number of admissions. Chloral-hydrate has been found to be a reliable remedy in wakefulness at this institution; the patients were selected from the more common forms of mental disease, as melancholia, mania acuta, puerperal and general paresis. It was given in doses of from 20 to 30 grains, just before the patient retired for the night.

The medical officers are as follows: J. P. Bancroft, M.D., Superintendent, Treasurer, and Physician; J. P. Brown, Assistant Physician; Austin Thomas, M.D., Second Assistant and Apothecary.

The Origin of Cholera.—Dr. John C. Peters, of New York (*N. Y. Med. Journal*), in a valuable paper on the "Origin and Travels of Asiatic Cholera," says we are driven back on British India as the only country in the world having the unenviable reputation of being the abode of endemic cholera; for none can deny the fact that it is endemic in Calcutta, where the lowest number of deaths from it per year, since 1841, was 2,502, the highest 6,417. In Madras the lowest number of deaths in one year was 574, the highest 3,635; in Bombay the deaths from cholera, among from 6,000 to 21,000 white troops, have varied from 4 in one year to 1,085, *i. e.*, from 1840 to 1868; among 26,000 to 47,000 native troops, from 4 to 190 per year; among 5,000 to 8,000 prisoners, from 1 to 203 per year.

Dr. J. G. Richardson, at a stated meeting of the Biological and Microscoptical Section of the Academy of Natural Sciences of Philadelphia, exhibited several *slides of microscopic objects mounted in a saturated solution of acetate of potash*, as recommended by Max Schultze (see remarks of Dr. James Tyson, *Medical Times*, No. 18, p. 345), and desired further to ask the attention of the Section to this new and valuable preservative menstruum. He stated that according to his experience, confirmatory of that recorded by previous observers, it possessed two great advantages, especially for beginners in microscopy. The first of these consists in this, that after meeting during an ordinary examination with an interesting specimen (such as a group of tube-casts or some well-displayed alveoli filled with cancer-cells in the edge of a thin section from a malignant growth), it is by no means necessary to remove the cover and thus run the risk of losing the object, because a small quantity of the acetate of potash solution, placed at the margin of the thin glass, will readily diffuse itself beneath it, and accomplish the purpose designed. He had found it advisable to apply a drop of the solution at two opposite edges of the cover, so as to obviate any strong currents which might disarrange the specimen; also, to allow it twenty-four hours to penetrate completely before wiping off the excess with a *moistened* cloth. The second additional advantage gained by the employment of this preservative fluid is the absence of any disposition to mingle with the ordinary white zinc cement, preventing the latter from running under the thin cover when applied around its edge. In no case was any tendency observed to such a misfortune, so liable to occur with most preservative liquids, unless cells are employed.

The specimens exhibited comprised one of blood, three weeks old, showing clearly the leucocytes and red blood discs—the latter, although flattened, were not crenated, and retained a large proportion of their coloring matter; one of tube-casts from the urine of Bright's disease, containing fatty epithelial cells; one of a specimen of croupous (fibro-corpuscular) lymph stained with carmine, containing well-defined leucocytes; one of a thin section from a fibromatous tumor; one of crystals of uric acid, which had been slightly granular when mounted, but showed no further deterioration during the following two weeks.

In a reply to a question from Dr. L. S. Bolles, Dr. R. stated that the solution employed was made by simply dissolving an avoirdupois ounce of the dry acetate of potash (as sold by all druggists) in half a fluidounce of river-water, and allowing it to become clear by standing a day or two.

Dr. W. S. Halsey inquired whether this solution would not be apt to react with some of the crystalline urinary deposits in such a way as to interfere with its use in their preservation.

Dr. Richardson replied that such would probably be the case in some instances, as on one occasion, when attempting to mount some octahedra of oxalate of lime, he had found their places occupied after twenty-four hours by stellate groups of feathery crystals,—very likely the result of double decomposition; a slide upon the table, however, indicated no such action as regards uric acid, and of course no similar danger of chemical reaction is to be apprehended with specimens of animal or vegetable tissues.*

New York State Lunatic Asylum, Utica.—From the Annual Report of this institution, for the year 1870, we learn that the general statistics from its opening, January 16, 1843, to December 1, 1870, are:—Total number of admissions, 9,706; total number of discharges, 9,063; total number of discharges recovered, 3,725; total number of discharges improved, 1,479; total number of discharges unimproved, 2,534; died, 1,213; not insane, 112. Number of patients at the commencement of the year: Men, 298; women, 305; total, 603; received during the year, men, 247; women, 234; total, 481; whole number treated, men, 545; women, 539; total, 1,084; daily average under treatment, 629⅛. Discharged recovered, men, 75; women, 78; total, 153; discharged improved, men, 38; women, 34; total, 72; discharged unimproved, men, 71; women, 63; total, 134; discharged not insane, men, 6; women, 1; total, 7; died, men, 42; women 33; total, 75. Whole number discharged, men, 232; women, 209; total, 441. Remaining November 30, 1870, men, 313; women, 330; total, 643.

The resident medical officers are: John P. Gray, M.D., Superintendent and Physician; A. O. Kellogg, M.D., First Assistant Physician; Judson B. Andrews, M.D., Second Assistant Physician; Walter Kempster, M.D., Third Assistant Physician; E. R. Hun, M.D., Special Pathologist.

* Although this assertion is, I presume, strictly true, yet the fact that we can rarely obtain animal structures without some portion of their natural fluids (which often contain crystallizable salines) may *practically* require it to be somewhat modified. At all events, I have, since the above was written, observed a very few columnar crystals form around a specimen of encephaloid cancer of the liver, preserved for three weeks in acetate of potash solution.—*Note by Dr. Richardson.*

No further change has occurred in the last month.

New York Catholic Protectory, Westchester.—The report of the male department of this institution, established eight years ago, for 1870, gives the following exhibit:—Number of inmates, in the year ending January 1, 1870, was 768; number admitted during the year ending December 31, 1870, 920; discharged, indentured, and absconded during the year ending January 1, 1871, 780; died during the same period, 7; number remaining during the same period, 900. From the Sisters' report of the female department the following facts are gathered:—The number of girls in this department on the 31st of December, 1869, 213; number of girls received in 1870, 254; total number for 1870, 467. Discharged in 1870, 93; sent out to service, 15; transferred to House of Good Shepherd, 4; absconded, 1; total, 113. Total number of girls remaining January 1, 1871, 354. Dr. C. F. Rodenstein, of Westchester, N. Y., the Attending Physician, says that during the year nine deaths have occurred—two from purulent peritonitis, three from the sequelæ of scarlet fever, two of which were preceded by uræmic convulsions; one from typhus; one from compression of the brain, in consequence of a fracture of the skull. One of the Christian Brothers died of consumption, and one of the Sisters of Charity from the rupture of an aneurism. The prevailing diseases were as follows:—Measles, 29; intermittent fever, 38; simple pneumonia, 13; oligæmia, 17; purulent ophthalmia, 272; trachoma, 13; eczema, 14; scabies, 17; furuncle, 13. *Surgical Cases.*—Fractures of the femur, 1; of the tibia, 6; of the fibula, 2; of the radius, 4; clavicle, 2; anchylosis of the knee-joint, 1; of the shoulder-joint, 1.

Rush Medical College, Chicago, Ill.—The annual announcement and catalogue of this medical college for 1871–2 states that about fifteen hundred medical men have graduated from there since its organization in 1843. Ninety-one students received diplomas at the late commencement.

Kings County Lunatic Asylum.—Dr. E. R. Chapin, Resident Physician of this institution, in his annual report, states that the whole number of patients under treatment at present is 957, of whom 203 are females.

The Formation of Teeth.—In the Dental Convention, at White Sulphur Springs, Dr. Harriman, of Boston, read a paper on the formation of teeth, showing them to be fibrous. The views expressed caused some surprise and considerable discussion.

Transactions of the Wisconsin State Medical Society.—The Medical Society of the State of Wisconsin convened at Philharmonic Hall, in the city of Milwaukee, June 15, 1870, and was called to order by the President, Dr. R. Marks. The roll being called, about thirty members were found to be present.

Dr. Darius Mason read an interesting and comprehensive essay upon the Properties and Uses of Carbolic Acid. This was followed by papers on Colle's Fracture, by Dr. William Meacher; An Historical Outline of Traumatic Surgery, by Dr. Christian Linde; Lithotomy in a Child, aged five years, by Dr. J. C. Davis; Trismus Nascentum, by Dr. S. A. Ferrin. The Report on the Properties and Uses of Hydrate Chloral being called for, it was read by James Cody. Several members participated in the discussion. The essay on Intra-uterine Medication, by Dr. J. K. Bartlett, comprising twenty-seven pages of the one hundred and thirty-one of the transactions, is a very creditable contribution to the literature of uterine diseases.

The beautifully printed pamphlet closes with essays on the subjoined subjects: Constitutionality of Disease, by Dr. L. G. Armstrong; Criminal Abortion, by Dr. E. A. T. Brewster; a Case of Opium-Eating, by Dr. Ira Manley; and Management of Torpid Bowels, by Dr. James Johnson. Last, but not least, is the excellent Constitution and By-laws of this prosperous society.

Dr. H. P. Strong, of Beloit, is the President, and Dr. J. T. Reeve, of Appleton, Secretary, for the year 1871.

Salt in the Sea.—According to M. Nadie, a French chemist, the Mediterranean Sea contains of salt 2.710 per cent.; the Atlantic Ocean, 2.789 per cent.; the English Channel, 2.595 per cent.; the Pacific Ocean, 2.587 per cent.; the Lake Ormiah (Persia), 19.05 per cent. The specific gravity of the water was found to range from 1.029 to 1.030 per cent.

Coxo-Femoral Disarticulation.—The first regular coxo-femoral disarticulation was probably made by Kerr, of Northamptom, England, in 1774, and was for hip-joint disease, or coxalgia, on a little consumptive girl, who lived to the eighteenth day after it.

Removal of the Tongue.—Mr. MacGillivray, Surgeon to the Bendigo Hospital (*Australian Med. Journal*), reports the successful removal of the whole tongue for epithelioma.

New Publications.

Books Received.

Headaches, their Causes and their Cure. By Henry G. Wright, M.D., M.R.C.S.L., L.S.A., etc. From the fourth London ed. Phila.: Lindsay & Blakiston. 1871.

The Teeth, and How to Save Them. By L. P. Meredith, M.D., D.D.S. Phila.: J. B. Lippincott & Co. 1871.

The Sphygmograph and the Physiology of the Circulation. A Monograph read before the Medical Society of New Jersey. New York: W. Wood & Co. 1871.

Practical Therapeutics: Considered chiefly with Reference to the Articles of the Materia Medica. By Edward John Waring, M.D., F.L.S. Second American, from third London edition. Phila.: Lindsay A Blakiston. 1871.

The Anatomical Remembrancer; or Complete Pocket Anatomist; containing a Concise Description of the Human Body. Third ed., with Corrections and Additions. By C. E. Isaacs, M.D., late Demonstrator of Anatomy, University of New York. New York: W. Wood & Co. 1871.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.M., M.D., LL.D., Prof. of Practice of Surgery with Operations, Bellevue Hospital Medical College, etc., etc. Fourth ed., revised and improved. Phila.: H. C. Lea. 1871.

Skin Diseases, their Description, Pathology, Diagnosis, and Treatment. By Tilbury Fox, M.D. (Lond.), M.R.C.P., etc. First American, from last London ed. Edited by M. H. Henry, M.D., Surgeon to the New York Dispensary, Department of Venereal and Skin Diseases, Fellow of the New York Academy of Medicine. New York: W. Wood & Co. 1871.

The Amateur Microscopist; or, Views of the Microscopic World: a Handbook of Microscopic Manipulation and Microscopic Objects. By John Brocklesby, A.M., Prof. of Mathematics and Natural Philosophy in Trinity College, Hartford, etc. New York: W. Wood & Co. 1871.

Original Communications.

REMARKS ON

SOME POINTS IN THE PATHOLOGY AND TREATMENT OF HEART DISEASE.

By WARREN STONE, M.D.,

OF NEW ORLEANS.

Diseases of the heart have occupied the attention of many of the first men of our profession since the days of Laennec, but they have done little more than to point out the pathological anatomy and the physical signs by which the various lesions may be detected before death. Pathological anatomy only discloses the results of disease; pathology contemplates disease in its course from its beginning to its end. The great secret of success in the treatment of disease consists in anticipating it, or in detecting it early before irreparable injury is done, and in a knowledge of its natural history, so as to be able to see from a present condition what will follow if not counteracted. This principle holds good in all acute diseases. Take pneumonia for instance: if it is seen and detected in its incipiency, in a large number of cases it can be aborted. Prof. Bennett tells us that the only evidence of inflammation is exudation. It is nonsense to say that there is no pathological condition antecedent to exudation. The pulse, the respiration, and the fine crepitation of engorgement indicate very clearly what the condition will be in twenty-four or thirty-six hours; but much may be done to ward off or lessen the exudation that will follow. I feel quite certain that many of the diseases of the heart may be warded off, or very much mitigated. A large proportion of diseases of the heart arise from inflammation, which occurs mostly in the young; and a much larger number than is supposed begin purely as functional derangements, which, if not relieved, lead on to dilatation, insufficiency of the valves, and all the consequences of obstructed circulation through the organ. Unfortunately inflammation of the heart is not always seen at the onset; but it occurs in connection with other diseases, for which the physician is likely to be consulted, and he should be on his guard. If he waits for positive physical signs, it will be too late. In certain forms of rheumatism peculiar to children, I think the heart is generally implicated; and it often occurs as a sequel to measles and scarlet fever, also in the rheumatism that so often attends chorea. The rheumatism of children is generally seated in the muscles or fascia, and is very painful, scarcely admitting of motion. In my experience great perturbation of the heart is full evidence that it is implicated, and it is folly to wait for friction sound or murmur. I give about equal parts of tart. emetic and morphia (a little more of one or the other, as may be indicated) to relieve pain, quiet excitement, and procure proper rest; also acetate of potass. freely, and frequent small doses of calomel. Calomel is not relied upon by some, because they have no faith in it, and by others, because it is difficult to get its effect in these cases; but given in connection with the above its effect is as certain as it is efficient. Pericardial effusion will disappear, and lymph, freshly deposited on the valves of the heart, absorbs as readily as we see it from the chambers of the eye. It is far better to anticipate exudation of lymph, as I am sure we can, if the above treatment is instituted as soon as the case can be distinguished.

What I wish more particularly to speak of is the second class, or functional diseases which lead to organic derangement. These begin later in life, perhaps the most of them after middle-age, though in some cases quite early in life. It begins by irregular action of the heart, not mere palpitation, but irregular action, such as more or less obstructs the circulation, and even severe cardiac asthma. My attention was called to this class of diseases of the heart many years ago. Several who had consulted me for this irregularity, had, in one, two, or three years, confirmed disease of the heart, and died from it. I had an opportunity of making a *post-mortem* examination in one of these cases, and found the heart pale and lax, and dilated so that the valves were insufficient, but not diseased. This irregularity is connected with some derangement of stomach generally, which impairs nutrition. There is a law that when the nerve function is deranged in an organ, nutrition is impaired also, and while the heart is frequently over-distended with blood, by reason of the irregularity of its action, which sometimes almost obstructs the circulation, the muscles are becoming feeble and dilatation follows. This irregularity is difficult to explain, and does not follow any law, but is so disturbing as sometimes to threaten life, while the organ carries on the circulation perfectly well when its action is regular and natural.

I was called to a gentleman, five years ago, who was in an extreme condition. He was a dyspeptic, and subject to palpitation. He said he had spent Sunday out of town with some friends, ate rather freely, and was afterwards subjected to severe excitement, which brought on agitation of the heart, and he was barely able to reach home. When I saw him his heart was acting with great irregularity, the circulation very much obstructed, and grew worse in spite of all I did. He became cyanosed, his urine was suppressed, and he expectorated specks of blood. He was ordered an ounce of the tincture of digitalis, with half a drachm of saturated tincture of veratrum, to be taken in doses of a teaspoonful. The effect of this was watched, and in a little more than twenty-four hours he took the whole, the heart was acting naturally, and all the functions were established. On careful examination no organic disease could be detected. I do not give so large doses usually, but the case was extreme, and the engorged state of the organs did not admit of ready or free absorption, and the case being under constant observation, the medicine was continued, as no ill effect was produced when the circulation was established. This gentleman is alive yet, and is now travelling in Europe, and, as I have heard, with great benefit to his general health.

Mr. H., a stout and rather plethoric man of sixty-six, a pretty free liver, sent for me in the fall. I found him laboring under the symptoms of heart disease in the last stage. He was sitting in a chair, resting his head on a pillow placed on a table, his lower extremities were very much swollen, and he had some water in his abdomen. The heart was extremely irregular, but no murmur could be detected. His urine was scant and high colored. I ordered him small doses of calomel, and the tinct. of digitalis and veratrum, in doses of twelve minims of digitalis to three of veratrum, three or four times a day. This quieted the heart very much, and the calomel soon began to increase the flow of urine, when it was assisted by the comp. powder of jalap, as often as his condition would bear. Under this course the dropsy disappeared, the heart became pretty regular, and he soon gained his strength and felt as well as he had for some years. He told me that he had been subject to the irregularity of the heart for many years, but he was a vigorous man; and although he occasion-

ally had temporary dyspepsia, his food was appropriated well, and the muscles of his heart did not degenerate, and dilatation was scarcely perceptible. The next year he was elected to Congress, and as his politics did not please the party in power, his seat was contested. He spent an exciting winter in Washington, and he returned in a worse condition than before. I thought he must die, but I put him on the same course of treatment, with a little addition to the quantity of digitalis and veratrum, and he recovered slowly. I kept him under observation for some time, regulated his diet, exercise, etc., and kept him under the use of the digitalis and veratrum for some time. He went into business, and was able to exercise freely. I had not seen him for a year or more, when he called on me to know whether he might not resume his medicine again, as his heart began to be unruly, as he termed it.

I am sure that remedy not only quiets this condition in a remarkable degree, but it has a curative effect when continued for a long time in appropriate quantity. Digitalis is beyond a doubt a stimulant and tonic to the muscles of the heart, and the veratrum calms the excited and morbid condition of the nerves with equal certainty. The two seem to act in harmony, and, I think, modify the action of each other. This irregularity almost always attends valvular diseases of the heart as they advance, so as to produce derangement of the stomach by obstructing venous circulation, and hence the frequent attacks of cardiac asthma when the heart is capable of carrying on the circulation quite well when its action is regular. An old lady of seventy years I had examined a year or two before, and found quite a loud murmur at the mitral orifice, which did not seem to interfere materially with the circulation; was seized with cardiac asthma, after having suffered a series of troubles, and it was thought by her physician that she would die, at least could live but a short time. I was sick at the time, and did not see her until she had several paroxysms, mostly at night. I saw her in the morning, when she was quiet. She was lying horizontal, with head low, breathing quite easy. The doctor directed my attention to the loud murmur. I told him that it did not evidently obstruct the circulation while the heart was quiet, and explained my views of the immediate cause of her attack, and advised the remedy. She took it in small doses (for the doctor was afraid of it), and had no more asthma attacks for some months, when she moved into the country. She died a year or so afterwards, but not from heart disease.

A little excrescence or atheromatous deposit that serves to break the current of blood will cause a loud sound, without materially interrupting the circulation. Mrs. C., a lady of middle age, came from the country, laboring under general dropsy, with heart disease. Her physician, who was an intelligent man, and had been her medical attendant, thought her liver was enlarged and indurated. I could not tell, as the abdomen was much distended. Notwithstanding a loud sound at the mitral orifice, she could lie down and breathe very well when the heart's action was regular; but she could not bear exercise. She had cardiac asthma mostly at night. She took digitalis and veratrum in the proportion of ten minims to two and a half of the veratrum three times a day, and she was directed to take it oftener if the heart became excited. On one occasion she had a severe attack of cardiac asthma, and she took six doses at an hour's interval. I found her the next morning with a pulse fifty in a minute, when it was usually a hundred; but she was very cheerful and felt no unpleasant sensation. She took, also, very small doses of calomel until the flow of urine (which at first was scant and high-colored) began to change in quantity and quality, when the comp. powder of jalap was given, which gave so much relief that she was disposed to take more than was directed. Under this course the dropsy entirely disappeared, and the heart became quiet and regular in the course of two months, and she had gained her strength so that she could take long walks. I saw her the day before she left the city, just as she came in from a shopping expedition, up two flights of stairs, without disturbing the heart or respiration. Patients laboring under irregularity of the heart's action generally consult their physician early, when much may be done. In addition to the digitalis and veratrum, the stomach requires attention. In those who have lived rather free and indulged in stimulants too freely, small doses of mercury act favorably, and afterwards tonics. In thin, pale subjects, iron tonics act well, and I have observed good effects from strychnine. A favorite prescription of my worthy colleague, Prof. Bemiss, is composed of equal parts of tinct. of nux vomica, digitalis, and iron. It is all important to regulate the habits of living in every respect. This is a subject of more importance than might at first appear. I have sketched very briefly my experience, and related sufficient cases to illustrate my views.

CASES ILLUSTRATING SOME OF THE MORE UNUSUAL FORMS OF EAR DISEASE.

By ALBERT H. BUCK, M.D.,
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* *Accumulation of Serum in the Cavity of the Tympanum; Puncture of the Membrana Tympani; Almost Complete Recovery of the Hearing.*

On the 14th of September, 1870, Charles Rourke, æt. 16, of scrofulous aspect, consulted me with reference to some affection of his ears. His statement was that four weeks previously he had noticed a throbbing in both ears, accompanied by more or less deafness and a moderate degree of pain, and that these symptoms had continued unchanged up to that time. When questioned, he stated that he had suffered pretty constantly since childhood from nasal catarrh. On examination I found the right membrana tympani moderately sunken and somewhat opaque. The left membrane was decidedly sunken. Its color was a peculiar greenish brown, and in the superior posterior quadrant the long process of the anvil could easily be seen through the membrane. After inflation with Politzer's air-bag, a delicate line became visible, running horizontally across the left membrane and dividing it into two unequal halves: its appearance was as if a hair had been stretched across the membrane. The hearing, which before the inflation was one inch on the right side and four inches on the left, for a watch of 12 to 15 feet hearing distance, was

* LITERATURE.—1. Diagnose und Therapie der Ansammlung seröser Flüssigkeit in der Trommelhöhle. Adam Politzer. Wiener *Med. Wochenschrift.* 1867.

2. Ueber bewegliche Exsudate in der Trommelhöhle. Adam Politzer. Wiener *Med. Presse.* 1869.

3. Ueber das Vorkommen seröser Flüssigkeit in der Paukenhöhle (Otitis media serosa). Emanuel Zaufal. *Archiv für Ohrenheilkunde.* Band V. 1869.

4. Serous Accumulations in the Tympanum. S. Moos. *Archives of Ophthalmology and Otology.* Vol. 1. No. 2. 1870.

5. Paracentesis Tympani. By W. H. Fitch, M.D. Chicago *Med. Examiner.* February, 1871.

6. Ueber Sekretionen und Ansammlungen von Flüssigkeiten in der Paukenhöhle: deren Wesen, Diagnose und Therapie. Fred. Eugen Weber. *Monatschrift für Ohrenheilkunde.* V. 1. 1871.

7. Zaufal, über die Operation der Paracentese des Trommelfells. Wiener *Med. Wochenschrift.* XXI. 8. 1871.

8. On the Accumulation of Serum in the Tympanic Cavity. Diagnosis and treatment. By Mr. Edwin Millingen. *Med. Times and Gazette.* March 25, 1871.

after the inflation increased to seven inches on the right and four feet on the left side.

Treatment.—Inflation of middle ears by Politzer's apparatus, with a view to promoting absorption of the fluid or possibly of dislodging it, either backward into the cells of the mastoid process, or forward through the Eustachian tube into the pharynx.

These inflations were repeated three times during the subsequent ten days, but without producing any permanent change either in the hearing or in the level of the fluid. The marked improvement in the hearing, immediately following the inflation, lasted but a few hours at the most.

On the 24th of September I made a vertical incision, three lines long, in the posterior half of the membrane at the junction of the upper and lower quadrants. The pain caused by the puncture was trifling, and lasted but a minute or two. The middle ear was then forcibly inflated by Politzer's apparatus. Three or four drops of fluid were thus driven out through the perforation into the external auditory canal. It was soaked up with small balls of cotton, twisted round the end of a malleable steel probe, and was found to be slightly tinged with blood, which probably came from the wound in the membrane. After the operation the hearing distance increased to 18 inches for the watch.

I next saw the patient on the 28th of September. There had been no inflammatory disturbance in the ear since the operation. The hearing distance had increased to five feet on the left side. The perforation in the membrane had entirely healed, but the water line was still visible, though at a much lower level. Some ecchymosis could still be seen in the neighborhood of the linear cicatrix.

Patient visited me again on the 10th of October. The hearing distance had then returned to 18 inches for the watch. After inflation it rose temporarily to two feet. In the belief that the catarrhal closure of the Eustachian tube had been the chief cause of the relapse, and that a permanent cure could only be effected after the mucous membrane of the tube had been restored to a comparatively normal condition, I instituted the following treatment and kept it up faithfully for nearly a month:—Spraying of nostrils with a solution of nitrate of silver, gr. ij.— ʒ i.; application of the same solution to the upper part of naso-pharyngeal cavity by means of a suitable syringe; inflation of the middle ear by Politzer's apparatus. These applications to be made three times a week.

By the 26th of November the naso-pharyngeal catarrh had so much improved that I ventured to repeat the operation of puncturing the membrane. The incision was made in nearly the same spot as before, but was perhaps not quite so long as the first. Very little fluid was evacuated by the subsequent inflation.

As before, the puncture was not followed by any unpleasant symptoms. Two days afterwards, on examination of the membrane, the level of the fluid appeared quite as high as before the operation. I therefore incised the membrane again, this time lower down and throughout a greater length. After inflation of the middle ear, a mass of bubbles could be seen lying in front of the punctured membrane. They were soaked up with balls of cotton, and the hearing distance was then found to have risen to eleven feet for the watch.

Patient returned on the 30th of November. No unpleasant reaction had followed the operation. The water line had entirely disappeared, and the membrane had lost its peculiar greenish hue. Hearing distance for the watch, 7 feet; increased by inflation to 11 feet.

The following day I again tested his hearing with the watch, and found that he could hear it at a distance of 11 feet from the left ear.

Remarks.—The accumulation of fluid in the left tympanum may be accounted for in either of the following ways: either there had been an acute catarrh of the middle ear, accompanied by an unusually abundant secretion of mucous, or the catarrhal process had been chiefly restricted to the Eustachian tube, causing it to remain closed for a prolonged period of time. In the latter case the small body of air in the tympanum would soon become absorbed, and the effects of this absorption would be, first, to draw the membrana tympani as far inwards as its elasticity would permit; and second, by the removal of the normal atmospheric pressure from the walls of the vessels, to favor the transudation of serum. In the present case the last hypothesis seems to me the most probable of the two. The fluid evacuated from the cavity of the tympanum appeared more like serum than mucus in character; the membrana tympani presented none of the appearances of congestion which are usually seen in acute catarrh of the middle ear; the serum, moreover, did not cease to accumulate until after the Eustachian tube had been restored to nearly its normal condition. All these circumstances, it seems to me, favor the adoption of the last hypothesis.

The diminution in the hearing of the right side was probably due to the lesions of a chronic catarrh of the middle ear. No material improvement took place during the course of the treatment.

A Second Case of Serous or Mucous Accumulation in the Middle Ear.

Cornelius Crowe, æt. 28, presented himself to my clinique at the New York Eye and Ear Infirmary Nov. 2, 1870. He stated that ten days previously he had "caught a bad cold in the head." It was accompanied, he said, by a sense of fulness in the right ear, occasional tinnitus, slight deafness, and a disagreeable resonance of his own voice when speaking. On inspection I found the right membrana tympani in nearly its normal position; the manubrial and peripheral plexuses of vessels were very much injected, and in the posterior superior quadrant a perfectly circular outline could be seen, which conveyed to the eye the impression of a bubble. On auscultation, during inflation of the middle ear, the air was heard to pass freely and without râles through the Eustachian tube. During the act of inflation by Valsalva's experiment, the bubble could be distinctly seen to rise and fall with the changes of pressure.

Treatment was commenced, but patient did not return after the first visit.

Remarks.—In this case, although the disease probably originated in, or was, at least, synchronous with, the nasal catarrh, its chief seat seems to have been in the tympanum and not in the Eustachian tube, as was evinced by the auscultatory signs, by the normal position of the membrane, by its congested appearance, and by the tinnitus. For this reason the fluid contained within the tympanum was probably mucus and not serum.

Case of Morbus Brightii with Exudation of Blood into the Tympanum.

Mary Casey, æt. 33, presented herself to my clinique at the New York Eye and Ear Infirmary March 29, 1871. She stated that two months before she had noticed a roaring sound in the right ear, accompanied by a moderate degree of deafness. These symptoms had continued since. By questioning her, I ascertained that for a much longer period she had suffered from

anasarca and other symptoms which pointed clearly to the existence of renal disease. Her aspect, moreover, was that of a person afflicted with some serious chronic malady. On inspection of the right ear, I found the membrana tympani in apparently its normal position. The short process and handle of the hammer were of their usual whiteness. The upper half of the membrane was perfectly normal in appearance, but the lower half had a peculiar redness, which, from its uniformity and depth of color and abruptness of outline superiorly, conveyed the impression that blood had been extravasated into the cavity of the tympanum, and had filled it up to the level of the umbo of the membrana tympani.

Her desire to return to her home in the country the same afternoon, and her feeble condition, rendered it advisable not to attempt any treatment at the time. She has not returned since. (A somewhat similar case is mentioned by Schwartze in the *Archiv für Ohrenheilkunde*, Vol. IV. page 12.)

Horny Growth of the Membrana Tympani.

Archibald Lindsay, æt. 36, was admitted to the New York Eye and Ear Infirmary June 21, 1871. He stated that 14 years ago, during exposure to severe weather, he first began to be troubled with noises and slight deafness in both ears. These symptoms had continued since, though at times they would be less marked than at others.

In both ears the watch could only be heard at a distance of two inches; in conversation with him, however, I was not obliged to raise my voice appreciably. On inspection the external auditory canals were found to be filled with inspissated cerumen. To facilitate the removal of these hardened plugs of wax, the patient was directed to fill the ears night and morning with a warm solution of bicarbonate of soda (gr. x.— ℥ i.). Three days later the cerumen was easily removed by syringing. On examination of the membranes the following appearances were then noticed:—On the left side there was nothing specially noteworthy; on the right the upper three-fourths of the membrane was occupied by a flattened, sharply-outlined mass of a pale yellow or yellowish-white color. It stood out from the level of the membrane to a distance of a line, and terminated throughout its entire lower border with abrupt edges. Along its upper and anterior boundary the mass became gradually merged in the skin of the auditory canal. Its surface was smooth and slippery, and when touched with the probe conveyed the impression of being quite hard. The portion of the membrane that remained uncovered by the mass was of a uniform milky appearance, similar to what is frequently seen in cases of chronic catarrh. By the removal of the hardened wax, the hearing distance was increased to two feet on the right side for the watch. With a view to obtaining more light on the nature of this strange mass, I directed the patient to continue the use of the soda solution for a week. When he returned the mass was found still to occupy the same place. Its surface was more or less softened by the prolonged moisture, but in other respects no appreciable change had taken place. Patient did not return for further treatment.

Remarks.—I interpret the case to be one of horny growth from the dermoid layer of the membrana tympani, produced possibly by the long-continued irritation of a ceruminous plug in the meatus. The case, so far as I know, is unique.

Acute Inflammation of the Middle Ear and Mastoid Cells; Perforation of the Mastoid Process by an Operation; Recovery.

Last December Mrs G., æt. 47, was taken ill with a severe earache in the right ear, followed soon after by a purulent discharge from the meatus. Throughout the month of January the pain continued with only occasional intervals of relief; it then gradually became less severe, and up to the first of April she was able to go about and attend to her household duties. About this time, however, the discharge almost ceased, the pain became very severe, and for several nights she was unable to sleep. She vomited the greater part of her food, and spoke at times incoherently. At noon, April 8, 1871, I saw Mrs. G. for the first time. She was evidently in great suffering. When asked direct questions she would answer them satisfactorily, but at other times she kept up a constant muttering to herself. Her pulse was 104 and feeble, though regular. There was no special heat of skin. The meatus of the right ear was so much swollen as to be virtually closed. The discharge of pus took place through the Eustachian tube. By a snuffing and hawking motion she was able to spit it out. The right mastoid process was very tender, but there was no appreciable swelling.

Treatment.—A free incision, dividing the periosteum of the mastoid process, to be followed by warm fomentations to the part; sal Rochelle as a laxative; beef-tea diet.

In the evening I went prepared to trephine the mastoid process, but found her so much better than at my morning visit that the operation seemed unnecessary. There was then a free discharge from the right meatus and the pain had very much diminished. At my visit the following day I found that she had passed a very comfortable night. Her appetite had returned, and the discharge from the meatus continued to be abundant. For the next ten days the treatment consisted in simply syringing out the ear two or three times a day with lukewarm water.

By the 18th of April the swollen condition of the meatus had so far disappeared, that with the speculum I could ascertain the existence of a small mass of granulations springing from the posterior superior wall of the meatus, about midway between the commencement of the cartilaginous portion and the outer orifice. These were cauterized daily with the solid nitrate of silver. Her general health had steadily improved since the 8th ult.

Up to the 1st of June no change occurred in Mrs. G.'s condition worthy of note. Nitrate of silver, acid nitrate of mercury, alcohol (95 per cent.), and laminaria bougies were successively used to check the growth of granulations, and allow a free exit for the discharge of pus from the tympanum. Her general health remained good, and there was only now and then a paroxysm of moderate pain in the ear. At times the discharge would be somewhat bloody. About the 1st of June, however, she commenced to suffer from severe pain not only in the ear, but extending over the whole right side of the head. The pain was pretty constant, though usually more severe at night. All caustic applications to the granulations in the meatus were stopped and leeches were applied from time to time to the mastoid process; these, however, only afforded temporary relief. On the 14th of June the pain became unusually severe, and was referred chiefly to the side and top of the head. There was also some nausea after meals. Although several searches for dead bone had been made on previous occasions, it was not until the 16th of June that a small sinus was discovered running from the centre of the mass of granulations in the meatus upwards and backwards into the mastoid cells. On consultation with Dr. Robert F. Weir, it was thought best, in view of the severity of the symptoms, to establish a counter opening in the right mastoid process.

The patient being under the influence of ether, an incision 1½ inch long was made through the skin and subjacent tissues at a distance of a third of an inch from the attachment of the concha, and in a direction nearly parallel to it. A second incision was carried from the middle of the first backwards to the distance of an inch. Both these incisions were extended down to and through the periosteum. The angular flaps were then everted, exposing to view the mastoid process over a space the size of a nickel cent. The bone was found to be in a softened condition over the lower part of the process, so that it could readily be broken down with a small gouge. An opening was thus established through which a probe could be passed into the sinus communicating with the meatus. Two probes, introduced from the opposite openings, were found to meet in the mastoid cells. No loose fragments of bone were encountered, and no appreciable amount of pus escaped from the new opening. The wound was then stuffed with lint to prevent union by adhesion.

The immediate effect of the operation was to relieve her from the severe pain in the head and from the nausea. On the third day after the operation she had another paroxysm of pain in the right side of the head. It lasted but a few hours, however, and did not afterwards return. The external sinus communicating with the bone was kept open by a suitable tent. The discharge was at first very abundant, but it gradually diminished in amount, and on the 18th of July the tent was left out altogether. Since the operation her general health had steadily improved, and she was soon again able to attend to her household duties.

On the 5th of September patient reported that for nearly six weeks there had been no discharge either from the meatus or from the external wound. She could hear the watch at a distance of 4 inches from the right ear, and experienced no difficulty whatever in understanding ordinary conversation. On inspection, I found that the granulations in the external meatus had entirely disappeared. The entrance to the sinus had evidently closed. Owing to the decided narrowing of the meatus, I could not obtain a view of the membrane. The Eustachian tube being closed both to the catheter and to Politzer's mode of inflation, I could obtain no information by auscultation concerning the condition of the middle ear. A small scab marked the location of the external sinus.

Chronic Purulent Inflammation of the Middle Ear, with Destruction of a Large Part of the Upper Bony Wall of the External Auditory Canal, the Hammer, the Anvil, and the Upper Two-thirds of the Membrana Tympani.

Thomas Nile, æt. 34, presented himself to my clinique at the New York Eye and Ear Infirmary May 3, 1871. Since 9 years of age he had been troubled with a constant discharge of matter from the right ear. At times he had suffered from pain in the affected ear, but scarcely at all of late years. He did not remember to have ever seen any fragments of bone in the discharge. On examination I found the right auditory canal filled with a thick, offensive pus. After its removal by syringing, the following appearances were noticed:—The meatus, in its outer half, was perfectly normal; it then suddenly emerged into a large cavity, at the bottom of which could be seen the red, granulating inner wall of the tympanum. The membrana tympani had been entirely destroyed with the exception of its lower two-fifths, which stretched like a low partition-wall across the deeper end of the cavity. The upper portion of the inner half of the bony meatus had also been completely destroyed. The hammer and anvil were both gone. The mucous membrane of the tympanum was so much swollen that nothing could be seen to mark the exact locality of the fenestra rotunda or stirrup. Its whole surface was of a uniform red and granular appearance. The stirrup, however, or at least its base, must still have retained its connections and movability, for, on testing the hearing with the watch, I found that he could hear its ticking distinctly at a distance of 5 inches from the concha.

The left ear was comparatively sound.

A Case of Ménière's Disease; Sudden and Complete Deafness; almost entire Recovery of the Hearing.

Mrs. H., æt. circa 40, consulted me August 1, 1871. She stated that last Christmas morning, while in the enjoyment of her usual good health, she was suddenly seized with a severe pain in the head, accompanied by dizziness, nausea, and loud noises in both ears. She was walking about the room at the time, but when the attack commenced she was obliged to take hold of something to keep from falling. The objects in the room seemed to her to be turned upside down; she also saw double. Soon after lying down upon the bed she vomited. Her friends came into the room, and she then became aware that she had suddenly grown deaf, not being able to hear a word that was spoken to her. The nausea and occasional vomiting ceased within a few hours after the administration of suitable remedies, and with it disappeared the severe pain in the head. Her hearing also began to return, and, by the end of six days, she was able to hear quite distinctly again. The double vision lasted some weeks longer and then gradually passed off. The subjective noises, however, and a moderate degree of deafness had continued to annoy her up to the time of her visit to me.

On testing the hearing, it was found to be diminished on the right side to 2½ feet, on the left to 2 inches, for a watch of at least 12 feet hearing distance. The vibrations of the tuning-fork (C), no matter where it was placed on the cranium, were best heard in the right ear. As far as could be ascertained by inspection and by auscultation during catheterization of the Eustachian tubes, there was nothing in the condition of the meatus, membrana tympani, middle ear, or Eustachian tube to account for the difference of hearing between the two ears. In both there were signs of a slight catarrhal affection. The left pupil was fully twice as large as the right, and both responded to the light. From her physician, Dr. Carl Reincke, I ascertained that the ophthalmoscopic examination had yielded only a negative result. The attack had not been accompanied by paralysis of either facial nerve. Auscultation of the heart revealed the existence of a loud mitral regurgitant murmur.

Remarks.—The history of this case is unfortunately incomplete. I fully expected to ascertain further facts at a second interview, but the patient, to whom I probably did not give a sufficiently encouraging prognosis, has not since returned. Although the co-existence of valvular disease of the heart would naturally suggest the idea of embolus of some intra-cranial vessel, the rapidity of the recovery and the absence of motor-paralysis point still more strongly to the labyrinth as the seat of the trouble. The complex of symptoms tallies pretty accurately with what is called "Ménière's disease." A serous or sero-sanguineous effusion into both cochleæ, causing increased pressure on the terminal fibres of the auditory nerve, would afford a plausible explanation of a part of the symptoms—the subjective noises and deafness; while the vertigo and the inability to keep her balance may have been due to a

similar effusion into the semi-circular canals. The slight degree of permanent injury to the auditory nerves is an interesting feature of the case, for in most of the cases of Ménière's disease which have thus far been published, the deafness which followed the attack was much more marked.

Those interested in the subject will find a very full account of the disease in Vol. II., No. 1, of the Archives of Ophthalmology and Otology:—

A Clinical Analysis of the Inflammatory Affections of the Inner Ear. By H. Knapp.

On Vertigo Occurring in Affections of the Ear (auditory vertigo). By Dr. Gustav Brunner, of Zurich.

OPHTHALMIC NOTES.

I. Case of Acute Glaucoma; Iridectomy; Operation awakes Acute Glaucoma in the other Eye.

II. Cerebral Hemiopia occurring on Similar Sides, Stationary, Resulting from an Apoplectic Attack.

By RICHARD H. DERBY, M.D.,

ophthalmic surgeon to the demilt and new york dispensaries, late assistant of prof. von graefe, in berlin.

I. Ida K., aged 40, presented herself on the 29th of June, 1870. During the past year she had repeatedly seen rainbow colors about the lights, and latterly she remarked that her reading-glasses were not strong enough. Otherwise, up to the time of her present attack, no trouble with her eyes whatever. Three days ago, while washing, she felt suddenly ill and nauseated, and severe pain in her left eye. Patient went to bed, and leeches were applied to the left temple. The following morning the pain had subsided; toward evening the sight of this eye was somewhat obscured.

Now the tension of the left eye is much increased T+3. Pupil irregularly dilated. Aqueous humor cloudy. Details of the fundus not discernible. With this eye patient could count fingers when held at a distance of 4½ feet. Vision $\frac{1}{60}$. Eccentric vision less certain downwards, inwards, and upwards.

Right eye.—Hypermetropia ¼. Vision 1.

With the ophthalmoscope fundus seen to be normal.

On the 30th of June a broad iridectomy was made on the left eye downwards. On the 6th of July the vision of the left eye had improved to $\frac{1}{15}$. Eccentric vision no longer uncertain as before.

8th July. Until last evening positively no symptom of trouble in the right eye. Then she complained of temporary obscurations of this eye and sense of pressure. This morning patient complains of nausea, severe ciliary neuralgia (right). The right eye presents an exquisite picture of acute glaucoma. Pupil irregularly dilated; tension decidedly increased. On account of the cloudiness of the vitreous, fundus no longer to be seen. Vision ½. No limitation of the visual field. On the 11th of July an iridectomy was made downwards on this eye, and on the 16th the vision was ½.

The observation that in cases of inflammatory glaucoma the operation of iridectomy on the one side may lead to the outbreak of glaucoma on the other eye, was first made by Von Graefe.* Since then Mooren has written to the same effect.† In his last article on the Pathology and Therapeutics of Glaucoma,‡ Von Graefe finds the outbreak of glaucoma in the second eye, within two weeks after iridectomy on the first, occurs only in cases where an eye afflicted with primary inflammatory glaucoma has been operated on during the period of irritation, and in such eyes as these, where the second eye had already shown signs of the prodromes of glaucoma, this succession was especially frequent. Glaucoma was developed on the second eye within fourteen days after the operation on the first, in more than 30 per cent. of the cases.

II. Mr. C., aged 56, consulted me on the 10th of May, 1871, on account of deranged vision. On either eye the vision was ⅔, and there was an entirely symmetrical defect in each field of vision. The entire right half of each visual field failed. The remainder of the visual fields was for color as well as for the ordinary test normal.

The ophthalmoscope revealed nothing abnormal in the optic nerve or retina. Hypermetropia $\frac{1}{60}$.

From the history of the case I gathered the following facts. On the 25th of December, 1869, patient had an apoplectic seizure, resulting in hemiplegia as well as hemiopia of the right side. The hemiplegia soon passed away, but the condition of the eyes remained the same up to the present time. The hemiopia in this case is evidently to be referred to a paralysis of the left tractus opticus, resulting from apoplexy in the left hemisphere. The prognosis of the case was favorable, at least as far as the danger of total blindness was concerned. According to Von Graefe, entire blindness can supervene on a one-sided apoplectic affection only—

(*a.*) When an apoplectic affection develops itself in the other hemisphere;

(*b.*) When fresh effusions into the hemisphere originally affected cause general cerebral derangement, perhaps through anæmia;

(*c.*) When a basilar disease, directly affecting the trunks of the optic nerves, supervenes;

(*d.*) When a limitation of space in the cranium involves compression of the cavernous sinus, and, in consequence, venous strangulation of the papilla;

(*e.*) When the continued progress of the encephalomeningitic disease causes a secondary neuritis.*

The history of the case made it evident that the original attack was simply one of apoplexy; there had been no evidences of meningeal disease, and the fact that the condition of the eyes had remained the same during so long a period made it extremely improbable that a change for the worse might occur. The patient might, on the other hand, have another apoplectic attack, and such a manner of life as would least conduce to this was recommended to him.

* Archiv f. Ophth. viii., 2, p. 55.
† Ueber sympathische Gesichtsstörungen, p. 98.
‡ Archiv f. Ophth., xv., 3, pp. 116, 117.

* Clinical Lectures on Amblyopia and Amaurosis, translated by Hasket Derby, M.D., p. 41.

RUPTURE OF TENDON OF PLANTARIS.

By ELLIOTT COUES, M.D.,

assistant surgeon, u. s. army.

The case of this accident that recently came under my notice may interest others besides myself, not only on account of its infrequency, but because it shows how unquestionable a "diagnosis by exclusion" may sometimes be.

An elderly man, in stepping briskly up a steep embankment, felt something give way in his leg, heard a distinct snap, and thought some one had struck him with a stone on the lower part of the calf. He was quite lame when I saw him a few minutes afterward; a particular spot half-way up the leg behind was pain-

ful; and after the usual interval there was a good deal of swelling and ecchymosis in the same place. There was not the slightest injury of either knee or ankle. The patient limped about for a week or ten days.

In this case the injury was equally remote from either knee or ankle; the patient's sensations, as above related, showed that some structure in the leg had given way, and the subsequent symptoms were those of laceration of sclerous fibre. It certainly was not the tendo Achillis, as rupture of this would have been visible or tangible upon examination, and moreover, would have been followed by more serious results. As the only other tendon that could be snapped without extraordinary violence is that of the plantaris, the diagnosis is evident. Probably a quick motion caught the calf muscle unawares, and before this could contract the strain upon the plantaris was more than the latter could bear. The rarity of the accident may be inferred from the fact that it is not mentioned in some standard treatises.

Fort McHenry, Md., Sept. 19, 1871.

Original Lectures.

A CLINICAL LECTURE ON

PROLAPSUS UTERI, WITH AN ILLUSTRATION OF ITS SURGICAL TREATMENT.

By PROF. ALEX. J. C. SKENE, M.D.,

OF THE LONG ISLAND COLLEGE HOSPITAL.

(Reported by Edward Seaman Bunker, M.D.,)

Gentlemen:—Some time ago I stated to you that the uterus was a movable organ, circumstances changing its position to a limited extent without causing trouble; but in the case before you it has got a long way beyond the limits of its normal privileges. Hence this lady finds herself an invalid.

Observe here, if you please, that the vagina is turned inside out, forming a sack which contains the uterus and bladder. We can satisfy ourselves that such is the case, first by carrying this probe into the cavity of the uterus, and then by introducing this catheter into the bladder. You remark that the catheter passes downward towards the vaginal outlet, whereas if the bladder were in its normal position the instrument would ascend behind the pubes. Now, grasping the walls of the vagina, so as to approximate them above the fundus uteri, we readily exclude inversion, hypertrophy of the cervix, tumors, and all those affections which resemble in some degree prolapsus uteri. We must be thus careful in making a diagnosis, because we are told by good authorities that other conditions may be mistaken for prolapsus uteri, as, for instance, hypertrophy of the cervix. To exclude this last-named affection we have only to measure the cavity of the whole organ—which you see in this case is only three inches. We are able in this way to satisfy ourselves that the prolapsus is real, and not merely apparent. Again, by restoring the uterus and bladder to their normal position in the pelvic cavity, and examining the abdomen, we prove that these organs have not been crowded out of place by any unnatural pressure from above. With the uterus and bladder thus replaced we can examine the introitus vulvæ. You see that the parts are very much relaxed. The perineum is divided down to the sphincter ani, and doubtless this accident, which evidently occurred some time ago, has permitted the falling of the womb.

Keep in mind the physical conditions while we take the history of the case. This lady is 55 years old, and has had a number of children. Her general health has always been good; but nearly fifteen years ago, after the birth of her youngest child, she began to have pelvic tenesmus, or dragging downward of the pelvic contents, and also irritation of the rectum and bladder. These symptoms were greatly aggravated by walking, standing, or lifting heavy weights. During the first years of the trouble she had some menstrual derangements, but in due time that function ceased entirely. Since the menopause, leucorrhœa has been a constant and distressing symptom.

Some years ago she noticed at the introitus vulvæ a tumor presenting, which she thought to be her womb. This increased in size until it got to be as you see it here. This clinical history is such as we usually obtain in what may be called chronic prolapsus uteri, where the displacement increases year after year. The slight descent of ten years ago has gradually become the complete prolapsus now existing. Could we have watched the progress of this case from the beginning, we should have seen first that the divided perineum permitted the vaginal walls to bulge downward, so as to engage in the introitus vulvæ; then, acting like a wedge, the prolapsed vagina distended the pelvic outlet more and more, just as in hernia the inguinal ring is gradually enlarged by the intestine crowding into it. As the vaginal walls descended, the uterus and bladder followed; and the ligaments which aided in supporting the pelvic organs kept "paying out more line," as the sailors say. Thus all the neighboring soft parts became implicated in the uterine displacement. That you may readily understand the causes of this trouble, recall what has been said regarding the agents which hold the uterus in its normal position. The books tell correctly that descent of the womb is caused by

1. Increased weight of the organ from subinvolution, tumors, and the like.

2. Abnormal pressure from above, as in a case which we recently had in hospital, where we found, *post-mortem*, a peculiarly enlarged spleen which pressed the uterus down to the floor of the pelvis.

3. General relaxation of the ligaments and vagina, with atrophy of the pelvic areolar tissue.

4. Loss of the normal supports of the vaginal walls, as in the case before us.

This patient at her last confinement met with one of the common accidents of childbirth, namely, rupture of the perineum, which at least permitted, if it did not actually cause, prolapsus of the pelvic organs. Had the perineum been restored at once, the patient would have been spared these years of discomfort; truly a stitch in time would have saved the formidable operation which we must now undertake. In recent cases of prolapsus of the first or second degree, you may get satisfactory results from keeping the patient in a horizontal position, and, after elevating the uterus, injecting some astringent solution into the vagina.

But in cases like this you must choose between a mere palliative treatment and an operation for radical cure. By applying some suitable instrument to support the displaced organ we could relieve this patient to some extent. Without discussing the subject of pessaries to-day, I will simply remark that no very satisfactory results could be expected from their use in a case like this. At best, uterine supporters are merely palliative, not curative. We look to operative surgery, as developed in recent days, for the relief of this afflicting malady.

In operating for the cure of prolapsus the aim has always been to contract the vaginal walls, and thus

check the downward tendency of the uterus by strengthening its support below. Various modes of effecting this have been tried. Our fathers applied the actual cautery to the vaginal walls; this caused sloughing of the parts, and the resulting cicatrix narrowed the vagina. The operation was effectual in excess: the uterus was certainly fixed in its place, but at the same time its functional activity was seriously obstructed. Between this rude, destructive procedure and the beautifully scientific and conservative operation devised by our own Marion Sims, there intervenes a long course of tentative surgery which we should find highly interesting and instructive had we but time to dwell upon its details. We must content ourselves, however, with remarking that Dr. Sims first discovered the key to an operation which promises, when brought to perfection, to re-establish the complete anatomical and functional integrity of the parts. His operation consisted in paring out a V-shaped piece of the mucous membrane of the anterior wall, and bringing the freshened surfaces together by silver-wire sutures. Thus a pocket was formed, the wide and open end uppermost; and time proved that this was objectionable, because the sack filled with the secretions of the parts, and in some cases the cervix uteri got caught in the pocket. Dr. Emmet overcame these objections by making a triangle instead of a V. I have never been able to understand why these gentlemen preferred to make the piece they brought together triangular in shape; nor do I believe that the union obtained in that way can be very strong. I also believe that leaving a piece of the mucous membrane in the centre, to be enclosed when the denuded surfaces are brought together, is objectionable. In short, of the modes of operating now before the profession, I think that of Dr. Morton, of St. Mary's Hospital, London, England, the best. He takes out an elliptical piece, about 1½ inch wide, and the whole length of the anterior vaginal wall, and brings the edges together with wire sutures. When the parts have healed, he retrenches the introitus vulvæ by perinæorrhaphy. I have operated after his plan, and obtained satisfactory results. I adopt his mode of operating, as far as I understand it, with one important exception. Lack of time and patience induced me to try some way of escape from the tedious and difficult task of retrenching the vaginal wall with the organs in the pelvic cavity; and I found it perfectly practicable to perform the operation while these were still prolapsed. The elliptical section of the vaginal wall is easily dissected out with the forceps and scissors, as you here see; and while waiting for the slight bleeding to stop, we introduce the sutures. Then drawing the edges together, we secure the stitches with perforated shot. This much of the operation is as easily done as taking out a section of the skin on the surface of the body and then sewing up the opening. You see it is painless, also; though no anæsthetic has been used, the patient makes no complaint.

You observe that we have reduced the size of the tumor very considerably; and now I restore the uterus to its proper place, at the same time turning the vagina *outside in*. The principle of this procedure is like turning the finger of a glove after sewing. You see how this simplifies the operation. In the space of a few minutes we have accomplished what would have occupied a long time if we had been working in the pelvic cavity. And the results are, I believe, better, because we can make more perfect work. Restoring the uterus does not disturb the stitches in the least. Dr. Morton lets the parts heal, and after removing the sutures he operates to restore the perineum. But time is so valuable to my hospital patients that I have tried making both operations at the same sitting, and have succeeded well. I shall therefore proceed at once to restore the perineum, in the manner that I have already taught you.

The after-treatment in this case will be very simple. The patient will be kept quiet in bed, and have her water drawn with the catheter every four or five hours. If she has pain, we shall give opium, but that may not be necessary. The vagina will be carefully washed out once a day with a little warm water and carbolic acid. In some cases it is necessary to give opium in order to confine the bowels for a week or thereabouts; but this patient is of a constipated habit and will need no care in that respect.

At the end of six days, if the union appears good, I shall remove the sutures from the vaginal wall, and afterward take out those in the perineum.

In conclusion, let me give you a few practical hints which may guard you against mistakes in operating. Before you begin your operation, always take a pen and ink and mark out precisely the lines of incision on the anterior vaginal wall. An experienced and dexterous surgeon might get on safely without such guidance, but you will not feel justified in taking the risk.

Have the bladder partly filled with water, and introduce a curved sound. This will keep you apprised of the position of that important organ. Always use scissors in making your dissection. You will have much less hemorrhage than if you employed a knife; and that is a point of vital moment, for the use of a styptic would spoil the whole operation. Some operators say that in this locality you will even get readier union by first intention by using scissors. Certainly you will succeed as well in that regard as if you used a knife.

Go completely through the vaginal wall, and be extremely careful to go no farther. By so doing you will greatly facilitate the dissection, and have much less hemorrhage. The vaginal wall is easily separated from the bladder, except at the lower end, where the urethra begins.

Be very careful not to carry your stitches into the bladder.

As you replace the uterus, after retrenching the vagina, introduce the sound or redresser to guide it to its proper place. If you simply push the uterus up without the sound to guide it, the fundus will fall backwards in the position of retroversion.*

Progress of Medical Science.

Uva Ursi as an Emmenagogue.—At a late meeting of the Gynæcological Society of Boston, Dr. H. R. Storer (*Journal Gynæcological Soc.*), in a discussion on Dr. Iljaltelin's monograph on "The Gynæcology of Iceland," stated that the use of uva ursi as an emmenagogue or oxytocic was not a familiar one to himself. Dr. Wheeler had heard of its employment, but could not recollect by whom. Dr. Warren thought it had been by the late Dr. Josiah Noyes, of Needham, who used it like secale cornutum.

Management of Violent Epistaxis.—Dr. George H. Bixby, of Boston (*Journal Gynæcological Soc.*), relates a case of violent and prolonged epistaxis checked by a current of salt water passed continuously through the nares by a fountain syringe for the space of two minutes.

* This patient was seen five months after the operation. The uterus was found to be in its normal position, and the patient had not experienced the slightest return of her former symptoms.

Cardiac Myalgia.—Dr. E. Hale, of Chicago, Ill. (*U. S. Med. and Surg. Journal*), has for several years been convinced of the truth of Prof. Inman's proposition, viz.: that palpitation of the heart is the analogue of *pain* in the muscles under the immediate influence of volition, and believes that a large proportion of cases which are called nervous disorders of the heart are really *myalgic* affections of that organ. He also alludes to myalgia of the heart following rheumatism, even when no valvular lesions are present; cardiac disorder brought on from over-exertion, severe muscular efforts, and the like—the latter was quite prevalent in the army, where it was brought on by long, rapid, and forced marches. It is often caused by athletic sports, such as base-ball, rowing, leaping, and running. What is the condition of muscle after such exertion? A knowledge of the physical condition of the muscles during intense myalgia can be gained by examining muscle in cases of tetanus, and in animals hunted for a long period before death. He notes another muscular disease of the heart called cramp, or spasm of the heart. Happily it rarely, if ever, affects the whole heart at once; a portion of the heart may be affected with painful spasm without its rhythmical action being suspended. This may be the case in angina pectoris, and it is more than probable that this painful affection hitherto supposed to be neuralgic, may often be myalgic in its character, or, when recurring in a weak heart, consist of both conditions combined.

Hysteria from Compression of the Ovaries.—Dr. Chairon thinks he has discovered that compression of these organs may so excite the reflex sympathies of the epiglottis and of the larynx as to produce the globus hystericus, dysphagia, etc., which pertains to fits of hysteria.

Treatment of Tympany by Lobelia.—Dr. Geo. H. Bixby, of Boston (*Journ. Gynæcological Soc.*), reports a case of the treatment of tympany by lobelia. The employment of this drug for the purpose indicated was novel to him, and from its general repute he was prejudiced against it. In the case referred to, however, where the tympany had been very marked, and had persisted for a couple of months, immediate relief was obtained by lobelia injections, in the proportion of one drachm of the tincture to an ounce of water. Dr. B. has never seen so sudden and so satisfactory a result produced by any remedy, as in the instance referred to.

Carbonate of Ammonia in Pneumonitis.—Dr. Nelson Nivison, of Geneva, N. Y. (*National Med. Journal*), has long been in the habit of giving carbonate of ammonia in pneumonitis, and in nearly all cases of embarrassed pulmonary circulation. When this occurs from hepatization of the lungs there is no remedy so effectual. Whether it operates by stimulating the nerve-centres, and through them the innervation of the respiratory organs, or whether it modifies the chemical or vital properties of the blood, or produces both effects simultaneously, we may not, he says, in the present state of our knowledge be able to determine. Clinical observation has most strongly impressed upon his mind the conviction that in some way it very efficiently aids in the resolution and absorption of the fibrinous blood constituents, which by their coagulation solidify the parenchymatous structures of the lungs.

Hydrate of Chloral in Delirium Tremens.—Dr. J. Fulton, editor of *Canada Lancet*, bears his testimony to the use of chloral-hydrate in delirium tremens, and can confidently recommend its use in such cases. The dose he is in the habit of giving is 30 grains, in a wineglass of sweetened water, every hour until sleep is induced.

One of the Means Naturally Provided for Promoting Sleep in Infancy.—Dr. A. F. A. King, Washington, D. C. (*National Medical Journal*), publishes an ingenious paper, showing the use of the sounds of the heart and lungs in the mother's breast—this last being the natural resting-place for the young infant—lulling the child to sleep. In the quiet seclusion of the lying-in chamber, and with the delicate sensibility of the child's tympanum, not yet obtunded by the noise and bustle of the outside world, he remarks, how perfect must be the slumber of the infant when lulled to rest by the Lethean music which nature thus pours in its almost stethoscopic ear.

Glanders in the Human Subject.—Dr. H. Galloway, Rochester, Minnesota (*Trans. Minn. State Med. Soc.*), records a case of glanders, occurring in a laborer, æt. 24, which was relieved by the following treatment: ℞ Carbolic acid (liquid), m. xx.; acet. acid, ʒ ss.; tinct. myrrh, ʒ ij.; aqua, q. s. ut ft. ℥ vj. M. S g.: To be used with the nasal syringe. The carbolic acid was also to be given as follows: ℞ Carbolic acid, m. viij.; glycerine, ʒ j. M. Sig.: Teaspoonful to be taken every hour, omitting four doses during night-time.

The Termination of Malignant and Non-Malignant Diseases in Minnesota.—On the effects of climate, Dr. F. H. Milligan, of Wabasha, Minn. (*Trans. Minn. Med. Soc.*), who has seen several cases of cancer of the uterus, remarks as follows: "In my opinion, our climate, from some cause which I do not understand, is favorable to the rapid termination of malignant diseases."

Struma of glands, etc., are reported to be comparatively less prevalent here than in other States, more prevalent among Americans than foreigners, and the general opinion is that the climate of Minnesota is favorable to the mitigation and cure of this class of disease.

Remittent Fever.—Dr. Christoe, Flesherton, Ontario (*Canada Lancet*), finds that remittent fever may be produced by sundry vegetable offal and dirty water within or in the vicinity of habitations. In one case, a peculiar kind of fungus, soft—gelatinous and tongue-shaped, and throwing out an offensive odor—was found in a rotten stump of a tree. His usual mode of treatment, and in his hands quite successful, is to purge the bowels with pills composed of podophyllin, leptandrin, and ext. taraxacum. Two every six hours until the bowels are freely evacuated, ordering a pill to be taken every second or third night afterwards. He also orders a quinine mixture, something like the following: ℞ Quinia sulph., gr. xxxvj.; acid nit. dil, ʒ ij.; tinct. amantii, syr. amantii, āā ʒ j.; potass chlor., ʒ j.; aqua, ad ℥ vj. Ft. mist. Sig.: A tablespoonful every four hours.

In addition, he orders tepid baths to alleviate the fever; cold to the head, if delirious, or even if very hot, and acid drinks, preferring the muriatic. When convalescence becomes established, one of the mineral acids, such as the nitric, and tincture of cinchona are all that are necessary. Sometimes he finds the following to answer every purpose to establish convalescence: ℞ Quinodine, gr. i.; potass. chlor., gr. v.; podophyllin, gr ⅛; hyd. cum creta, gr. iij.; soda bicarb., gr. v. Ft. pulv. Sig.: One every four to six hours. In children, especially where vomiting exists, the stomach reluctantly tolerates bark or any preparation of it, and he seldom attempts it until that organ is quieted, and with that object in view he generally prescribes hyd. cum creta potassa chlor., and soda bicarb.

A Novel Case.—A case was read at a late meeting of the Obstetrical Society of London, reported by Dr. Routh, in which a child born in the twenty-second week of gestation, lived eighteen days.

Transplantation of Mucous Membrane.—At a meeting of the College of Physicians and Surgeons of Vienna, Dr. Czerny (*Am. Practitioner*) exhibited a case of transplantation of the mucous membrane of the nose upon a granulating surface of the upper arm. He spoke of three cases he had experimented on in this way, and one in which he had taken the mucous membrane from the mouth. The mucous membrane in one instance was taken from an extirpated polypus, and transplanted two hours after its removal. It had lost on its new ground its villi, and had changed into basement epithelium.

Iodide of Potassium in Tertiary Syphilis.—Prof. Freeman J. Bumstead, of New York (*Am. Practitioner*), in his "Hints on the Treatment of Syphilis," is convinced by no small experience, that the iodide of potassium cannot be relied upon alone for permanent relief in pure cases of tertiary syphilis; and that the judicious use of mercury, especially by inunction, concurrently with the iodide, affords a much greater degree of security. The "mixed treatment," administered in the form of large doses of iodide of potassium internally, and repeated courses of mercurial inunction externally, has relieved more desperate cases of syphilis than any other mode of practice with which he is acquainted. The books tell us that mercury and iodide of potassium should not be used at the same time for fear of severe salivation through the evolution of the biniodide of mercury in the system. Experience he says, better than books, teaches us that this fear is groundless.

Of the three methods for the external use of mercury more commonly employed—viz., inunction, fumigation, and hypodermic injection—he decidedly prefers the first named, for which he has given minute directions in the third edition of his treatise upon venereal diseases. Moist mercurial fumigation, so strongly recommended by Mr. Langston Parker, is indeed less repugnant to sensitive patients; but, judging from his own observation, is less convenient, and requires more time for each bath than most patients can well spare. It is pretty generally conceded by those who have made an impartial trial of hypodermic injections in the treatment of syphilis, that this method is not to be recommended for general adoption. Mercurial suppositories introduced into the rectum were recommended by Lebert. *Berl. Klin. Wochenschrift.* Prof. Bumstead made a trial of them recently in four cases at Charity Hospital, with results so unsatisfactory in controlling the disease that he abandoned the experiment.

In alluding to the errors too often committed by practitioners in the treatment of old and obstinate cases of syphilis, he states that the most heinous of all is an ignorance of the dose of iodide of potassium requisite to give this agent its full effect and to test its power. By many men doses of two, five, or seven grains, given three times a day, are regarded as the utmost limit, beyond which it is unnecessary to go. If the symptoms do not yield to this treatment it is concluded that the iodide is not the remedy, and something else is tried. To think of a patient suffering with the nocturnal agony of periostitis, or threatened with destruction of the palate or of the nose, being thus tampered with, is almost enough to make one's blood boil. Why, the iodide may be used with safety, and must be used, if its full effect is to be attained, with an unsparing hand. Relief will be had, and important organs will be saved by giving one hundred grains a day when the disease only laughs at fifteen or twenty. Patients find this out themselves when the physician has stinted them in the use of this remedy; and will tell him, as one of his patients with syphilitic necrosis of the ulna recently did tell him, that forty grains three times a day had no effect, while fifty, three times a day, were at once followed by a manifest improvement. The iodide of potassium has been given with impunity in the quantity of two or three ounces in the twenty-four hours for several weeks and even months, but this amount is unnecessarily large. He has never had occasion to exceed three drachms a day, and from a drachm and a half to two drachms is usually sufficient.

Whooping-Cough.—Dr. Miller, member of the Esculapian Society of the Wabash Valley (*Am. Practitioner*), finds that bromide of ammonium, in combination with tincture of veratrum, is exceedingly useful in whooping-cough.

Puerperal Mania.—Prof. Freiderich Weber, St. Petersburg, Russia (*Journ. Gynæcological Soc.*), affirms that the prognosis of puerperal mania is not only favorable, so far as fatality is concerned, but it presents far greater prospects of recovery than any other mental disease. The first step to be taken in the treatment of puerperal mania is to protect from violence the patient, her surroundings, and especially her infant. This may be best effected by the prompt use of the straight-jacket. During the paroxysm, purgatives, followed by a two-grain dose of opium, prove effectual in restraining the same. In cases of congestion of the head, the opium should be combined with some cathartic medicine, and leeches should be applied to the temples. If there are local inflammations, they should be treated locally. In chronic cases, the use of the bromide of potash is followed by good results. The diet should be of the most nutritious character. Tepid baths are useful in quieting the paroxysm. As the majority of these patients are of delicate constitution, frequently chlorotic or anæmic, iron and quinine are especially indicated. Close attention should be paid to the extraordinary appetite.

A Case of Calculus Nephritis.—Dr. Wm. M. Chambers, of Effingham, Ill. (*Chicago Medical Examiner*), reported a case of calculus nephritis, in which recovery followed the subjoined treatment:—Externally, a blister; internally, with the following mixture:—℞. Potass. acetatis, ℥ ss.; vini colchici, ℥ ss.; spts. nitrosi dulcis, ℥ ij.; tinct. opii. camph. ℥ ss.; fl. ex. belladonna, ℥ j; aq. cinnamoni, ℥ ss. M. Sig. One teaspoonful every three hours.

A calculus of phosphate of lime, weighing five grains, passed the urethra the day following.

Muscle-Grafting.—Dr. Benjamin Howard, of New York (*N. Y. Med. Journal*), publishes cases of true muscle-grafts, which elucidate the physiological action in cicatrization induced by skin-grafting; the principle of which not having been previously taught by previous operators.

In the case of Major K——, with total destruction of the calf of left leg, at Gettysburg, in 1863, the wound had been reduced to about four inches in length by about an inch in width when first seen by Dr. Howard. At first skin-grafts were used, which for a time had an excellent effect upon the callous edges; but they halted, causing him to propose another experiment. Three cleanly-cut excavations were made, about equidistant, in the base of the ulcer, large enough to receive respectively, the first, a flax-seed; the second, a barley-corn; and the third, a pea. A piece of cleanly-exposed muscle, more than a quarter of an inch square, was exsected from the biceps of the patient's right arm. This was divided into three pieces, corresponding to the size of the excavations, and they were then deposited so that their surfaces were level with the base of the ulcer. The

next day the grafts were so firmly united that neither of them could be detached with the point of a scalpel. On the second day the pale surface of the ulcer had become so vascular as to vie with the florid muscle-grafts. To his surprise, this quickening was shared also by a distant part of the original wound, separated from the main body and the muscle-grafts by a wide bridge of cicatricial tissue. The margins of the wound were equally improved. This centripetal cicatrization proceeded most rapidly from a point nearest to the largest muscle-graft, over and beyond which new skin was quickly thrown, the site of the graft being afterward marked by a circular elevation in the newly-formed promontory. The other grafts acted with less vigor; the second in size was reached and covered with skin by approaches from the margin in about eighteen days. The smallest became too luxuriant, remained elevated above the surface, and was the last point to become completely cicatrized.

Dr. Howard thought it possible that the previous use of skin-grafts in the above case might in some way modify the result. He therefore performed the same operation on another of his patients with an extensive burn. Three muscle-grafts, from the biceps of the opposite arm, were inserted about equidistant from each other in the wound. The first day after the operation the granulations assumed a brighter appearance, those overlapping the edges of the wound after the second day began to subside, when simultaneously the edges became typical in shape and color, and crept forward at a pleasing rate. After the first week he was prevented from seeing the case for ten days, when a narrow hard scab was all that remained.

These facts, he says, plainly show that neither the increased vascularity of the surface of the wound, nor the centripetal cicatrization induced by the skin-graft, is in any way due to the epithelium in the graft. The accelerated growth of the edges and granulation of the base has been the greatest when the contiguous graft was the largest. For several cogent reasons, Dr. Howard states that it could but be unwise to propose muscle-grafting as a substitute for skin-grafting. Besides the greater ease with which one can obtain the skin-graft, it may act not only as does the muscle-graft, but also by its germination, as the muscle-graft cannot; the centrifugal and the centripetal extension of new skin both combining to complete the cure.

Management of Epileptic Mania.—Frank A. Ramsey, M.D., Knoxville, Tenn. (*N. Y. Med. Journal*), writes as follows in regard to the treatment of a male patient, æt. 25, with epileptic mania: Under the influence of bromide of potassium, grs. xxx., and hydrate of chloral, grs. xv., given when the patient is very boisterous, and grs. xxx. of the bromide, gtts. xx. of fluid extract of can. indic., given regularly morning, noon, and night, the intensity of the exhibitions of mania is very much modified; and though talkative, with incoherency of ideas, he is now quiet for periods of greater length; but any relaxation in the administration of the bromide and hemp is very soon followed by more intense exhibitions of mania.

Fatal Case of Horse-Shoe Pessary within the Bladder.—Dr. H. R. Storer, of Boston (*Journ. Gynæcological Soc.*), reported, on behalf of Dr. O. Goss, of Lake Village, N. H., a fatal case of this character. The instrument had been introduced by an irregular practitioner. Dr. Storer remarked that this constituted, so far as he was aware, the sixth case in which a pessary had been carelessly introduced into the bladder. Dr. Goss's was the first fatal case; he sincerely trusted that it might prove the last.

Treatment of Puerperal Eclampsia.—Dr. Harvey Jewett, Canandaigua, N. Y. (*Buffalo Med. and Surg. Journal*), says, if puerperal eclampsia is the result of uræmia, or any other poison acting upon the excito-motory spinal nerves, as the result of non-elimination during the period of gestation, we are, in the treatment of this disease, to address our remedies to the casting off of this poison by the use of drastic cathartics, as the only channel available in the exigencies of the case; and in no case under his observation, when it has been faithfully carried out, has it failed to produce satisfactory results.

The Sulpho-Carbolates as Gynæcological Agents.—Dr. Theophilus Mack, of St. Catherine's, Ontario (*Journ. Gynæcological Soc.*), finds a special advantage from the sulpho-carbolate of zinc. In cases of ulceration or erosion of the os and cervix, he has employed it by irrigation, in the proportion of half a drachm of the salt to the pint of tepid water. As an intra-uterine application, he has applied it both by injection and with a mop, and finds it to relieve septicæmia, whether used before or after the removal of decomposing matters from within the cavity of the uterus.

It is also beneficial in chronic vaginitis, attended with fetid discharge; being used in solution with glycerine, in doses of ten grains at a time, applied by the tampon.

Erythematous Rash following the Use of Quinine.—Dr. Geo. P. Andrews, of Detroit, Mich. (*Detroit Review of Medicine and Pharmacy*), alludes to the peculiar effect of quinine, which he has observed a number of times in his own practice, viz.: a bright scarlet, erythematous rash, lasting but a short time, and passing away. In one case the patient "rolled upon the floor, and was almost crazy with the itching and burning."

Dr. Andrews is satisfied that the quinine was the clear cause of the eruption in these cases, for there was no erythema during any of the paroxysms that preceded giving the quinine. The case was that of an elderly lady in whom quinine produced cramps in her bowels and the extremities, so that the quinine poisoned her.

Collodium cum Ol. Ricini.—A writer in the *Archives Générales de Médecine* recommends a mixture of collodion and castor-oil in cholera. The algid stage of cholera is arrested by painting thirty or forty grammes over the abdomen. It stops the vomiting of cholerine and cholera, and provokes a sudoral crisis, in which the poison is eliminated.

Treatment of Intra-articular Gun-shot Fractures.—Langenbeck assumes as a general rule that for gun-shot fractures of the shoulder, elbow, or foot, secondary resections are proper; whereas, in the cases of hip and knee joints, and extensively comminuted fractures of *all* articulations, prompt resections are necessary. Langenbeck, contrary to the assertions of certain surgeons, advocates conservative surgery in the treatment of wounds of the knee, and reserves amputation or resection for cases where the soft parts are extensively injured, the condyles crushed, and hemorrhage serious. For wounds of the articulations of the foot, resection, he thinks, constitutes the true triumph of modern surgery.—*Gaz. Hebdom.*

Insufflation of the Tympanic Cavity.—Dr. Peter Allen has added a very simple modification to Politzer's process, which consists in replacing the tube which serves to carry the air into the Eustachian tube by a hollow rubber ball, which being pressed against the nares at the moment of deglutition and its contained air expressed, the air finds its way into the cavity of the tympanum without the necessity for the introduction of a sound.—*Medical Society of London.*

Cure of Hydrocele by the Seton.—This method is a modification of what is known as Pott's treatment, and has been lately recommended, especially by Mr. Henry Smith, an English surgeon, as perfectly safe, convenient, and effectual, patients being able to go about and even attend to their various occupations during the progress of cure; two cases only, out of thirty operated upon by him, suffering subsequently even inflammation—one of these the result of imprudence in exercise—and no return of the disease in any. The operation is described by Mr. Smith as follows:—Simply to puncture the tumor with a common suture needle, armed with a single thread, and, having brought the thread out a distance of one or two inches from the point of entrance, it is disengaged from the needle, and the two ends are tied lightly together. He further advises that this thread, as a rule, may be left in from eight to ten days, and at any time, if the inflammation seems inclined to fall short of the degree required, it may be increased by moving the thread.

Thomas R. Dupuis, M.D., Odessa, Ont. (*The Canada Lancet*), having had some experience in this treatment, is inclined to think that there is more risk in this treatment than by the injection of a stimulating fluid, which is quickly brought into contact with the interior of an already empty sac, which subjects all parts at once to the same grade of excited action, and which does not interfere with the tissues *external* to the parts acted upon.

The Corrosive Chloride of Mercury.—Prof. F. J. Bumstead, of N. Y. (*Am. Practitioner*), in "Hints on the Treatment of Syphilis," affirms that the corrosive chloride is the least desirable of all the preparations of mercury for internal administration. He usually employs in his own practice either the pil. hydrargyri or the proto-iodide, or sometimes the hydrargyrum cum cretâ. The proto-iodide is found to be too irritating to the bowels of some patients, and in all cases should be given half an hour or an hour after meals, and not on an empty stomach. The mercury, with chalk, acts mildly but effectually when well prepared, and is conveniently combined with quinine, and put up in capsules. He most frequently, however, employs the blue mass, made into pills of two or three grains each, with the addition of one grain of the dried sulphate of iron; one pill to be given three or four times a day, an hour after eating. These pills rarely act upon the bowels, or require the addition of opium.

Oidium Aurantiacum is the name of a fungoid growth appearing recently on the bread distributed in several instances to French troops. M. Poggiale, to whom had been submitted a specimen for examination, reported to the *Académie de Médecine* that the sample of bread was very much altered by the presence of a substance varying in color from a yellowish white to reddish orange, which filled the cavities of the bread and imparted to it a nauseating odor. Microscopic examination showed in the interior of the mass tubular fibres of a grayish white color, carrying on their upper extremities orange-colored sporules, which were developed with prodigious rapidity under the influence of heat and moisture. The same cryptogam was observed in 1843, in Paris, Marseilles, and Algeria. It is thought that the growth is introduced into the bread in the husks of the grain since it has thus far been noticed.

Treatment of Lupus Exedens.—E. Andrews, M.D., of Chicago, Ill. (*Chicago Med. Examiner*), takes the following course, recommended by Dr. R. Volkmann, of Halle, in the treatment of lupus exedens: With an instrument like a small spoon, all the tissue which will yield to its scraping action is first scooped away; then with a tenotome, or other small knife, innumerable minute slashes and stabs are made into all the affected vascular tissue around, the surgeon cutting until it is reduced to a sort of mince-meat, without, however, destroying the vitality of any of it. The ulcers then begin to heal, and the contraction of the multitudinous small cicatrices reduce the affected surrounding tissue to a nearly natural condition. Dr. Andrews has recently tried this plan with excellent effect in Mercy Hospital. The patient had lost the septum narium and part of the border of the nose and of the upper lip. He removed all the diseased parts which would yield to a vigorous scraping action, and then slashed and stabbed all the red tissue in the vicinity. An immediate improvement began to take place, and in about four weeks the parts were healed. The tip of the nose, which had been drawn down, closing the orifice of the nares, and rendering respiration by that passage impossible, was supported by a gutta-percha tube, and, as the cicatrix grew firmer, showed its power to maintain its position without further help.

The Specific Gravity of the Calvarium considered as a Sign of Age.—Professor Tourdes has undertaken to solve the problem, if the specific gravity of the bones of the *calvarium* bear a sufficiently direct relation to the age as to make the fact of medico-legal value, and with this view reports his examination of 51 calvaria, 39 of which were from male subjects, and 12 from female, the causes of death having been sudden. The influence of age is shown in the following table:—

	Medium.	Maximum.	Minimum.
Children	1,514	1,623	1,224
Middle age	1,726	1,882	1,507
Old age	1,636	1,778	1,453

The following conclusions are the result of his examinations:—

1. The density of the calvarium in 51 experiments was found to range between 1.882 and 1.214; above 1,800 is exceptional, four crania only reaching this degree of density.

The general medium was 1.649, the greatest number of cases ranging between 1.600 and 1.800.

2. The density was a little greater in the masculine sex.

The medium being 1.672 for males, and 1.665 for females, a female presenting the maximum of 1.882; but in the first eleven cases comprising the highest density, but one female was to be counted.

3. The influence most noticeable was that of age, the density being at its maximum in infancy: average, 1.514; at its maximum at middle age, 1.726; and diminishing with advancing age, the average became 1.636 in the latter period.

Fractured Clavicle.—Dr. Slayton, of Spencerport, N. Y. (*Buffalo Med. and Surg. Journ.*), at a late meeting of the Monroe County Medical Society, gave the detail of two cases of fractured clavicle, treated successfully and recovered from, without deformity, under the use of the bandage proposed to be used in this class of cases by Dr. Moore, at the meeting of the State Society at Albany, in April, 1870.

Dr. Montgomery also gave details of two cases treated according to this method, one of which proved a perfect success, the other a partial success. Dr. E. M. Moore gave an account of an unique case of dislocation forward of the sternal end of the clavicle, which being reduced, and his bandage for fracture of the clavicle applied, was recovered from completely, with no apparent deformity.

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HOSPITAL APPOINTMENTS.

If any special evidence were needed to prove how absolutely necessary it is that reforms should be made in the matter of hospital appointments, it is certainly furnished every day to any intelligent reader who will glance at the names of most of the successful candidates for public positions, and reflect for a moment on the almost *utter absence of any professional claims possessed by many of these appointees beyond political and family influence.* To those who have never given this subject any attention this assertion may seem a harsh one; but to those who have watched the course of the appointing bodies in this city during the past twelve or fifteen years, it is known to be a plain and truthful statement. No one regrets this more than we do. We have waited patiently for a reform, in the vain hope that the baneful, ay, the disgraceful effects of this system would become patent to those who not only held the power, but the means of correcting the evil. Instead of any prospect of improvement from these sources, we are forced to the conclusion that we are daily drifting from bad to worse, and we intend now to step into the breach and do battle with our very best energies against this monstrous wrong both to the interests of the profession and the public. In no other city in the world where science and liberal principles find any home, could such a state of affairs exist, and we intend New York shall be no exception to the rule that has worked grand results in other countries. We are not unmindful of the barriers that stand in the way of a reform of this character; but we have an illustrious precedent for the course we are taking. When, thirty-five years ago, Mr. Wakley commenced his labor of reform in the London hospitals, it did seem a Herculean task, and one less gifted than he might easily have failed: but he saw the sources of the evil; he knew that it was nursed for the personal benefit and aggrandizement of a few, whose legitimate claims would never serve them; that the great mass of conscientious and educated men were with him, and with such a reserve he knew how the battle would end. We need this reform now in New York that was made in England thirty years ago. When a vacancy occurs in the medical or surgical staff of a hospital we want the claims of each candidate carefully considered, and acted upon in an honest and straightforward manner, and in the interest of science; for the fair fame of the profession and the benefit of the public we want the best candidate appointed. In a recent discourse "On Research in Medicine," delivered by Dr. Benjamin Ward Richardson, before the St. Andrews Medical Graduates' Association, he thus alluded to the late editor of the *Lancet*, as "the strongest man in the practical reform of our craft in our time—the Cromwell of physic—the man who, opening the locked doors of hospitals, nailed them open, and who left behind him a work which, though its blasts and its hurricanes are subdued—though its noble Saxon tongue, ringing like the hammer of Thor on an anvil of silver, hath caught the Norman lisp, and though the hand of the poet—born, not made—moves it no more, is, notwithstanding, under the momentum of his genius, still one of the most powerful class-journals in the world."

A novel method of dodging discipline was presented at the last meeting of the Medical Society of the County of New York. It appears that one of the members of that body had been brought before the Comitia Minora, charged with violations of the Code. An examination of witnesses and of the accused was made as usual in private, and the Committee agreed upon a report to be presented to the Society. What this verdict was does not appear. The accused, not waiting for the rendering of the report, appealed to a Judge of the Supreme Court, and obtained an injunction against the Comitia Minora, forbidding them to make any communication whatever. This naturally roused an indignation in the Society, and it was impossible, when the affair leaked out, to restrain discussion. Dr. M. H. Henry, in a well-timed speech, insisted upon presenting the facts, rightly claiming that the injunction had nothing to do with the freedom of the Society at large, and succeeded in resolving the meeting into a Committee of the Whole. An earnest and proper appeal was then made to summarily expel the member for the insult which he had given to the Society. This insult was the more apparent when it was known that it was as impossible for the accused to be acquainted with the contents of the report as for the Society itself. No one knew the tenor of the report save the members of the Committee themselves. The conservative element, however, ruled the majority in favor of respecting law and awaiting a final decision of the court when the case should come up for a hearing. This decision did not, however, prevent a pretty free expression of opinion regarding the unmanly conduct of the accused, his culpable want of confidence in the integrity of the members, and, above all, the vir-

tual acknowledgment of his guilt by shirking a fair trial. The latter inference is forced upon every unprejudiced mind, irrespective of any of the peculiar merits of the case. We once heard of a reply of a client to his attorney, which may have an application in this case:—"Pat," said the attorney, "I shall see that you get justice." "But sure, your Honor," replied the accused, "its the justice I'm afraid of."

The prevention of the crime of abortion is a subject in which the New York Academy of Medicine has declared a deep interest as shown by the manner in which it indorses the determination of Judge Bedford and District Attorney Garvin to punish such as are convicted. Let its example be followed by similar organizations, that the public may be aware that the entire profession of medicine are ready and willing to work hand in hand with the judiciary in the attempt to stay the growth of this the most horrible of all murders.

Reviews and Notices of Books.

Essay on Growths in the Larynx; with Reports, and an Analysis of One Hundred consecutive Cases treated by the Author, and a Tabular Statement of all published Cases treated by other Practitioners since the Invention of the Laryngoscope. By Morell Mackenzie, M.D., Lond. M.R.C.P., etc., with numerous illustrations in chromo-lithography and wood-engraving. London, 1871: J. & A. Churchill. 8vo. pp. 263. Philadelphia: Lindsay & Blakiston.

In typographical appearance, quality of paper, elegance of illustration, and value of subject-matter, this volume reflects great credit upon its learned and skilful author, and upon the celebrated London publishers to whom its issue has been entrusted.

The work begins with a history of the literature of the subject, and continues in sections devoted to a consideration of the causes of laryngeal growths, their symptoms, diagnosis, pathology, prognosis, and treatment. Then follow four appendices, containing successively:—Reports of one hundred consecutive cases treated by the author; short reports of a few cases in which radical treatment was not adopted; table of one hundred consecutive cases treated by the author; table of all published cases treated by other practitioners since the invention of the laryngoscope.

The history is succinct and accurate, and we pass it by, inasmuch as it is already familiar to American surgeons, in the language of Green, Buck, and Elsberg, of New York, and has been adverted to in several of the reports of similar cases given in various medical periodicals published in the United States.

Chronic congestion of the mucous membrane of the larynx is, according to our author, by far the most important feature in the production of simple morbid growths in the larynx; and catarrh, therefore, their great predisponent. Our author states distinctly that neither syphilis, nor phthisis, nor any other constitutional condition appears to favor the growth of these neoplasms; and regards as exceptional the imperfect papillary growths that do occasionally appear in the larynx in the latter stages of laryngeal phthisis.

A perusal of his own cases narrated in Appendix A confirms this view of the matter; still we cannot resist the belief that the catarrhal condition existing in tuberculous and syphilitic laryngitis exerts a greater influence upon the production of growths in this locality than our author appears to acknowledge. It is true that his personal experience exceeds by far that of any other individual who has had anything to do with such cases, as well as his success in their management; but a large proportion of the cases seen by the writer of this notice, whose observations, though not counted by hundreds, can be counted in dozens, were distinctly connected with phthisis, which in some instances proceeded to its fatal termination after the successful removal of the local growths; and not a few preceded by syphilis, if not connected with other evidence of the dyscrasia at the time of observation; the instances in which there were no other symptoms of disease representing but a minority of the whole number of cases.

The catarrhal condition of larynx predisposing to the formation of growths may be that of ordinary colds, that accompanying some of the exanthemata, that attendant upon croup and whooping-cough, and that produced by the inhalation of irritating vapors and solid particles. These growths occur at all ages, and are sometimes congenital, and our author has met them most frequently in middle life; 71 of his 100 cases having occurred between the ages of 20 and 50. This is perhaps the general experience, as in another table (Appendix D) of 163 cases in which the age is stated, 112 occurred between the ages of 20 and 50.

Attention is called to the probability that many cases in children are overlooked by practitioners who do not use the laryngoscope, and also on account of the greater difficulty in detecting their existence at an early age.

Of his own cases the number in males was 62 to 38 in females, and in his tabulated cases from other practitioners, 135 males to 52 females; the predominance being attributed to the greater exposure of males to the exciting causes of hyperæmia.

Of the 100 cases of the author, 74 involved the vocal cords alone, and 11 others the vocal cords in conjunction with other parts of the larynx.

The reason for this peculiar susceptibility of the vocal cords is not apparent, and our author does not touch the subject. It would be a very interesting point to determine, and we trust his indefatigable research will soon furnish us with a reliable theory to account for it.

The character of the tumors which have been reported are papillomata, benign epithelial growths, fibromata, myxomata, lipomata, fasciculated sarcomata, cystic growths, adenomata, and angeiomata. Of these, papillomata are by far the most frequent, 67 of the author's tabulated 100 cases of benign growth having been of this character.

The pathology of these growths and the methods of diagnosing them are fairly discussed in the volume, to which we refer the interested reader for details, as our space will not permit us to make any special remarks except upon the treatment of such growths, the point of greatest importance, and one on which the experience and judgment of our author is worthy of the greatest attention. Many of them are removable through the mouth by means of suitably curved instruments, but some of them require the division of the larynx, and others the performance of tracheotomy as a provisionary method of safety previous to subsequent removal through the mouth.

The principal instrument for removal through the mouth is the forceps, of which several varieties have been devised by our ingenious author. One important point which his instruments seem to possess above those of other operators being their form, in which the

descending portion makes more of a right angle with the horizontal portion than the catheter-like curve of most other instruments; the advantage gained being better avoidance of the epiglottis in their introduction into the larynx. Other instruments are wire-loop ecraseurs; straight, curved, and guillotine knives and scissors; galvano-caustic loops and knives, which, however, are not recommended on account of the inconveniences attending their use; besides which, caustic solutions are sometimes made applicable, and in other instances advisable, for destruction of residuary tissue which cannot be removed by instrumental procedure.

The only preparatory treatment commended by our author is the preliminary inhalation of a few whiffs of chloroform to obtund sensibility, or the local effect of sucking ice. He justly condemns the Continental practice of obtunding sensibility by the repeated local application of strong solutions of morphia, alternated with pencillings with chloroform, carried on for several hours preceding the operation, on account of the serious narcotism which is apt to follow it. Our own practice has been to obtund the sensibility by frequent touchings with the operating instrument, taking advantage of any favorable opportunity to seize the growth in the forceps, or pierce it with the knife, and we have sometimes succeeded, as our author has more frequently done, in seizing a growth at the very first attempt, without the institution of any preliminary manipulation whatever.

Our author does not approve of the operation of dividing the larynx for the removal of laryngeal growths for the purpose of saving time in the treatment; and states it as a cardinal law, that even where laryngoscopic treatment cannot be pursued, *an extra-laryngeal method ought never to be adopted unless there be danger to life from suffocation or dysphagia*, and he makes the remark that destruction of the vocal function is often the result of the most available extra-laryngeal method of operating, in addition to the dangers of the operation itself. He calls attention to two cases in his table of thyrotomy, in which the patients almost died from the passage of blood down the windpipe. We do not agree with him that in all cases tracheotomy should be performed in the first instance as a preliminary measure of safety; for there are growths inaccessible to laryngoscopic manipulation in which there is nothing to be gained by the measure. If a tumor of this kind is not very large, with extensive attachments, and unlikely to be followed by severe inflammation, the operation could well be performed at one sitting. If, on the contrary, it be one requiring a tedious dissection, with cauterization of the tissues from which it grew, an opening in the trachea will secure the avoidance of unpleasant complication which might follow inflammation and the effusion of fluids containing the glottis.

It is true that the results of thyrotomy in relation to life are to be seriously considered, nine cases having terminated fatally out of twenty-eight on record; but we do not think our author has any right to contrast these results with the favorable results of his ninety-three cases treated laryngoscopically, for we must give the operators credit, at least in the majority of cases, of having opened the larynx only in cases where removal of the growth was otherwise impossible. It is doubtful if there are any cases at all on record in which the intra-laryngeal method has been followed by death as a direct result of the operation; and the probability is that nearly all of the twenty-eight cases would have died if not operated upon, while certainly an equal proportion would not have so terminated if the cases treated laryngoscopically had been let alone. Every one of any experience in the management of these growths, must have met cases where small growths have existed dozens of years without endangering life, and which would not be submitted to operation at all but for the constant annoyance of the hoarseness which they produced. Where a growth is undoubtedly malignant, we should consider the external operation decidedly preferable, in view of the better opportunity it affords for complete removal of diseased structure, and also, as often desirable, a surrounding zone of healthy tissue.

It is impossible to give a proper *resumé* of the cases narrated in the essay. The records are well told, and efficiently illustrated; and it is not in mere compliment that we say no practitioner engaged in the surgical treatment of laryngeal tumors can afford to forego the study of Dr. Mackenzie's volume.

THE PRINCIPLES AND PRACTICE OF DENTISTRY, including Anatomy, Physiology, Pathology, Therapeutics, Dental Surgery, and Mechanism. By CHAPIN A. HARRIS, M.D., D.D.S., late President of the Baltimore Dental College, etc., etc. Tenth edition. Revised and edited by PHILIP H. AUSTEN, M.D., Professor of Dental Science and Mechanism, Baltimore Dental College. Philadelphia: Lindsay & Blakiston. 1871. 8vo, pp. 784.

THE TEETH AND HOW TO SAVE THEM. By L. P. MEREDITH, M.D., D.D.S. Philadelphia: J. B. LIPPINCOTT & Co. 1871. 12mo, pp. 268.

WITHIN the past fifteen years there has been no specialty in medicine or surgery that has taken more extensive strides towards perfection than has that of dentistry proper. Not only has it vindicated its claim to the appellation of a specialty, but it has now grown into a profession by itself, dividing in turn into numerous branches, each of which is cultivated with an assiduity worthy of the interests at stake. None, perhaps, has done more towards accomplishing this end than the distinguished author of the *Principles and Practice of Dentistry*, Professor Harris. During his lifetime acknowledged by scientific dentists to be the highest authority in his profession, he spared no pains to keep it good during the successive issues which it was his privilege to superintend. Since his decease, the work has been edited by Prof. Austen, who has emulated the example of the author, by continuing the work in an eminently praiseworthy and conscientious manner. With the aid of his distinguished confrères, all acknowledged adepts in their respective departments, he has given us a work, in completeness of detail, conciseness, and practical value, unequalled anywhere. To such as are practising dentistry its utility is beyond price. It is in itself an encyclopædia.

Dr. Meredith has also performed a useful task with his very readable and practical work entitled "*The Teeth, and How to Save Them.*" Ostensibly calculated to inform the public as to the proper care of the teeth, and when and how to seek aid from the dentist, it contains a vast amount of interesting information for the surgeon and physician. The author has succeeded admirably in pointing out the proper relations which should exist between patient and practitioner, and has indirectly done a service to the entire medical profession. As a contribution of facts and experiences it is one of the most interesting works of its kind that we have seen for a long time.

HEADACHES: THEIR CAUSES AND THEIR CURES. By HENRY G. WRIGHT, M.D., M.R.C.S.L., etc., etc. From Fourth London Edition. Philadelphia: Lindsay & Blakiston. 1871. 12mo, pp. 154.

WE have taken occasion to notice the previous edition of this work some time since, and as no material changes are made in the present one, we simply reiter-

ate our good opinion of it. As a treatise upon headaches proper, its particularly commendable feature is the masterly manner in which the etiology of the respective varieties of these affections are presented. The treatment advised in each is judicious, and in the highest degree practical.

A Practical Treatise on Fractures and Dislocations. By Frank Hastings Hamilton, A.M., M.D., LL.D., Prof. of Practice of Surgery, with Operations, in Bellevue Hospital Medical College; Surgeon to Bellevue Hospital, etc. Fourth Edition, revised and improved. Phila.: H. C. Lea. 1871. 8vo, pp. 782.

The fourth edition of this standard work has been enriched in many ways. The discussions which were, in the earlier editions, necessary to the elucidation of many principles of treatment, have been omitted, to give place to material of a more practical value. The illustrations, which added so much to the usefulness of the work, have been, in the majority of cases, improved by being recut, and by the substitution of many original figures, not omitting some very excellent and graphic ones from Bigelow's treatise on *The Mechanism of Dislocation and Fracture of the Hip*. It is unnecessary at this time to commend the book, except to such as are beginners in the study of this particular branch of surgery. Every practical surgeon in this country and abroad knows of it as a most trustworthy guide, and one which they, in common with us, would unqualifiedly recommend as the highest authority in any language.

Reports of Societies.

(*Official.*)

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Sept. 27, 1871.

Dr. A. L. Loomis, President, in the Chair.

TRAUMATIC CEREBRAL EFFUSION FROM A BLOW.

Dr. Finnell presented a portion of the right hemisphere of the brain of a boy aged six years. While engaged in a dispute with a comrade he was struck with a hoop-stick upon the side of the head. Three or four smart blows were inflicted, and immediately afterward the boy ran home complaining of nausea and headache. In the course of an hour he was seized with convulsions, which continued to recur at short intervals until the third day, when he died. The autopsy was made at the instance of the coroner, when it was found that the calvarium was exceedingly thin, being not much thicker than ordinary writing-paper. There was extravasation at three or four different points in the neighborhood of the injury. After the first convulsion there was delirium, which continued throughout his illness.

ANOTHER VICTIM OF ABORTION.

Dr. Finnell also exhibited the uterus of a victim of abortion. Finding herself pregnant, the deceased decided upon producing abortion, and resorted to an establishment kept by the notorious Mrs. Burns. The operation was performed by the injection of warm water into the uterus. On the third day after the injection symptoms of peritonitis developed, and the girl died three weeks after. Dr. F., with Dr. Marsh, made the autopsy, when it was found that there was a large amount of pus in the peritoneal cavity, the pelvic organs and intestines being thoroughly agglutinated. The girl, in her ante-mortem examination, stated that she had been pregnant three or four months; but this statement did not accord with the advanced changes in her breast, nor with the appearance of a corpus luteum in the left ovary, which measured three-quarters of an inch in one direction and a quarter of an inch in another.

LUMBAR COLOTOMY FOR CANCER OF RECTUM.

Dr. Mason presented a portion of rectum and colon removed from a patient upon whom the operation for lumbar colotomy was performed for the relief of cancer. The patient was sixty-four years old, and had given birth to fourteen children, ten of whom are alive and well. There was no hereditary taint of cancer in any branch of her ancestry. She had always enjoyed good health until four years ago, when she began to suffer from general debility. About five years ago she began to suffer pain on defecation, and this increased to such an extent as to bring on a voluntary and obstinate constipation. She entered the Charity Hospital on the 8th of last May, was extremely feeble, and her sufferings were frightful. For some days she would have no movement whatever, then this condition would alternate with diarrhœa and bloody discharges accompanied by bearing-down pains. On examination a tight stricture was discovered about two inches from the anus, and this, with the whole recto-vaginal wall, was infiltrated with a cancerous mass, as well as the neck and posterior portion of the fundus uteri. There was a small recto-vaginal fistula high up. Lumbar colotomy was advised, with a view of affording temporary relief and of prolonging life, and the operation was performed May 27. She bore the operation remarkably well, and rapidly recovered from its effects. Her distressing bearing-down pains, and constipation were much relieved, and she was in a condition, temporarily at least, to make life tolerable. During the summer months the disease reappeared, and she died on the 27th of August, just three months after the operation.

At the autopsy all the organs of the pelvis were found matted together in one cancerous mass, not excepting the bones and muscles. At a point midway between the promontory of the sacrum and the anus, the rectum had entirely disappeared.

Dr. Koehler presented a double-headed monster, which he had assisted in delivering. The physician with whom he had consulted had so thoroughly dissected the specimen that much of interest in it had been destroyed. There were to be seen two distinct heads, two spines as far as sacrum, and each chest was supplied with its respective organs. The abdominal and pelvic cavities were, however, in a rather mutilated condition, and gave no satisfaction in the cursory examination made at the time of presentation.

A committee was appointed, consisting of Drs. Lewis Smith, Watts, and Koehler, to examine further into the exact condition of the specimen, and report accordingly.

SLATE-PENCIL REMOVED FROM BLADDER.

Dr. Hutchison presented a fragment of a slate-pencil from the bladder of a man aged 30. He was married, and was the father of two or three children, and a resident of Stamford, Conn., whence he was sent to Brooklyn for operation. It appeared that he had been using the pencil for sexual excitation, and it had passed beyond his reach into the bladder. When he presented himself for treatment, he was exceedingly anxious for an operation. Three methods of removing the foreign body were thought of, that by lithotrity, by simple removal with a large forceps, and by bilateral section of the prostate. The latter was pre-

ferred as being the one that would consume the least time. By this latter method the pencil was removed without accident or complication. There was no flow of urine through the wound until the seventh or eighth day, and then only one or two drops. There was no incrustation upon the foreign body; it having remained in the bladder only four days.

CARCINOMA OF UPPER MAXILLARY AND NASAL BONES.

Dr. H. also presented the upper jaw of the left side removed from a female aged 52. The patient, a female, entered the Brooklyn City Hospital, Sept. 8. She stated that the disease first made its appearance in an ulcer at the root of the second bicuspid tooth. This was soon accompanied by a swelling in the corresponding cheek, which rapidly grew in size, pressing the eye upward and inward. The molar tooth and second bicuspid were removed, but with little benefit. There was but little pain connected with the tumor, except during the first month.

The steps of the operation were as follows:—1st. Removal of first incisor tooth of left superior maxillary bone. 2d. Incisions involving the least hemorrhage: (a) From before backward, along the inferior surface of palatal process of superior maxilla; (b) an incision toward the left side, along the posterior border of palatal process of superior maxilla. 3d. Curved incision from a point midway between eye and ear to the angle of the mouth. Flap dissected up, exposing the tumor. The amount of hemorrhage quite small. 4th. The zygomatic process of temporal bone cut by means of a strong pair of bone-forceps; then a cut through the lower portion of the frontal process of malar bone into the spheno-maxillary fissure; then through the nasal process of sub. max.; then introduced one blade into the left nostril, the other into the mouth, and cut through the palatine process of sup. maxilla. Then by depression the tumor was easily removed. The horizontal plate of the palate bone was not removed. Hemorrhage was arrested by torsion, and the parts smeared with impure carbolic acid, stuffed with lint, and edges brought together with wire sutures.

The tumor, when removed, weighed 4 oz.; it was lobulated in appearance, with an elastic feel, hard in some parts and almost semifluid in others. The portion below the eye was softer than at any other point. Microscopic examination revealed compound and simple cancer cells (free nuclei) fusiform caudate cells; free fat, occasionally a small amount of fibrous tissue; but the cells greatly predominated, and the spiral-shaped cells were the most abundant.

The patient made a good recovery.

EPITHELIOMA OF LOWER LIP RETURNING FOR THE THIRD TIME.

Dr. Hutchison presented a third specimen, consisting of an epithelioma of lower lip and jaw, removed by operation from a male patient, aged 67, who entered the Brooklyn City Hospital, Aug. 22. A little more than a year ago he had a small ulcer removed from the lip, in the situation where he was accustomed to carry his pipe. The disease subsequently returned, and he entered the hospital a second time, when a second operation was performed; the disease again returning and involving the symphysis menti, a more radical operation was called for. The mouth was enlarged, the jaw-bone cut through in front, and the edges of the section trimmed. An attempt was made to bring the parts together, but in consequence of an undue constriction of the larynx they were only approximated in view of a subsequent modified operation to overcome the difficulties in the way.

The Society then went into Executive Session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, September 21, 1871.

Dr. W. C. Roberts, Vice-President, in the Chair.

ANTIPHLOGISTIC TREATMENT OF WOMEN AND CHILDREN.

The following gentlemen were elected Resident Fellows: Drs. Christopher M. Bell, Edward Frankel, and Joseph W. Howe.

The Recording Secretary read a letter from Dr. W. H. Dickinson, of London, thanking the Academy for his election as Corresponding Fellow.

The Vice-President acknowledged the receipt of two copies of the *Edinburgh Medical Journal*, and a Catalogue of the Museum of Comparative Zoology at Harvard University.

Following an appropriate address of welcome by the Vice-President, the Report of Section on "Diseases of Women and Children" was then read by the Secretary, Dr. Charles A. Leale, who stated, in opening, that as the antiphlogistic treatment of the diseases of women and children had been most generally discussed, he thought it advisable to give a brief account of the subjoined opinions of the various members of the Section on this subject:—

Dr. Wm. M. Chamberlain, in alluding to the antiphlogistic treatment of the diseases of children, remarked that the term was a very old one, dating back to the time of Stahl and Van Helmont, and is understood to mean whatever relates to the treatment and cure of the febrile condition, and the process and cure of inflammation. He then gave the following theories of inflammation, as laid down by Dr. Jacobi: *First.* Inflammation consists in traumatic influence on the blood-vessels, either by direct injury or changed action. *Second.* Disorder of the circulation. *Third.* Exudation of the fluids and formed elements of the blood. *Fourth.* Nutritive disorder in the change and growth of cells. Dr. Peaslee divided the process into stages, as follows: Hyperæmia, or active determination of blood; Congestion approaching or attaining to capillary stasis; and Exudation, *first*, of liquor sanguinis; *second*, of fibrin; and *third*, of cell growth. These processes are to a certain extent distinct and opposite. Active determination is increased capillary circulation; congestion is retarded capillary circulation, and a rational therapeutist treated them differently. Venesection may be salutary in the commencement of pneumonia and mischievous after hepatization has taken place. Nitrate of silver applied to a healthy conjunctiva will produce hyperæmia; if applied to a congested conjunctiva the congestion is relieved. Depressants become phlogistics, and irritants become sedatives, according to the stage in which they are used. He remarked that according to Jacobi, the proximate cause of fever in children has always to be looked for in the nervous system; hence the importance and value of those therapeutic agents which affect the nervous system either through cutaneous or mucous surfaces, such as heat, cold, opium, veratrum, aconite, camphor, ergot, quinine, etc. He has always recognized cold as an antiphlogistic, but generally used it by cold affusion or sponging, and not by the full cold bath. In the exanthemata, cerebral diseases, intermittent, remittent, and typhoid fevers, when attended with great heat of the skin, sponging with cold water is both grateful and salutary. In pleurisy, pericarditis, or catarrhal fever, he generally preferred warm sponging or the warm bath—to relax the astringent capillaries and restore the suppressed secretions of the skin. The success in attempting to control inflammatory process by cold

will depend upon the situation of the disease, and the assiduity of its application. He would not attempt to control inflammation of the liver, lungs, or kidneys, by cold, but would treat synovitis of the knee-joint by ice-cold applications.

Inunction he spoke of as being a very old remedy, and pretty generally approved by the profession; he generally used fresh lard. The modus operandi of this form of treatment was not very apparent to him; the only rational solution seemed to be the protection that it afforded to the cutaneous nerves from the air. Opium he seldom uses in the febrile state of children, except occasionally in the form of Dover's powder. In peritonitis, pleuritis, or pericarditis, where the leading indications were to restrain motion of the serous surfaces upon each other; also in dysentery and muco-enteritis, its use has been followed with the best results. As an anodyne in the fever dependent upon local pain, and as an antispasmodic to the non-striated muscle, no remedy could compare with it. But its use in children is hazardous, and it should be prescribed with great care, not only on account of the idiosyncrasy of children, but on account of the variable toleration of the drug. Veratrum has not produced pleasant or satisfactory results in his hands. Even in small doses it has produced depression and vomiting at times, before its effects could be detected by the pulse. If it had been combined with hyoscyamus in mucilage, as recommended by Dr. Jacobi, he thought the result might have been different. Tincture of aconite he considers a valuable cardiac and arterial sedative, also a diaphoretic, in the febrile complaints of children; he gives one-half and one drop doses of the officinal tincture, largely diluted in water, and repeated once in two or three hours. The views of Jacobi upon camphor, quinine, and ergot, that they act as sedatives by their effect upon the vaso-motor nerves, has interested him; but the effect of the latter agent he considers as analogous to sulphuric acid, which has quite a reputation as an anti-febrile remedy. He is not aware that it either reduces the power or frequency of the pulse, or lowers the temperature of the body.

Dr. W. C. Roberts gave the explanations of inflammation as offered by Bennet, Andral, Jacobi, and others, and further remarked that as a secondary consequence of inflammation Kaltenbrunner had said that, if alcohol be applied to the web of a frog's foot, the blood presently flowed toward the irritated part, causing acceleration of the circulation. If the dose of alcohol is increased, the phenomena of congestion increase considerably, and extend over a larger space; at length points of stagnation appear in the focus of the affected parts, and announce the establishment of inflammation. If the dose of alcohol be still further increased, the points of stagnation become larger and more numerous; the circumferential disturbances of the circulation extend themselves, and at length implicate the whole of the circulating system, and give rise to a fever which is added to the inflammation, the circulation in the opposite foot being as much accelerated as in that operated on, and the general system disturbed.

Dr. A. C. Post stated that he never resorted to venesection in the infant, but when local depletion is demanded he uses leeches, which have been of great service, especially for the relief of the intense pain occurring in acute otitis. He applies the leech to the membrane of the tragus, and has procured by it more favorable results than any other means of treatment. He considers the antimonii potassio-tartras in $\frac{1}{60}$ gr. doses one of the best antiphlogistic remedies we have. In regard to blisters, he thinks that they are generally left on too long; would never leave one on a child of two years, longer than one hour and a half. His directions are to remove them before any vesication appears—thereby preventing absorption. He does not doubt that a sedative effect is produced by blisters, but believes they have been a much neglected as well as a much abused means of treatment.

Dr. Post stated, in answer to a question of Dr. Roberts, that it is by contiguous sympathy the result is obtained when we excite cutaneous circulation to relieve a remote inflammation, viz.: applications to the surface of the scalp relieve the brain, and over the epigastrium the stomach. He thinks that the effect of local blood-letting is in proportion to the means to which we approach the seat of disease, as when we relieve a congested os uteri by scarification. He has often seen patients much benefited by the application of leeches to the ala nasi to relieve an over-congested brain; half an ounce thus taken from the Schneiderian membrane will do more good than four ounces taken from the temple. He always applies the leech to the membrane covering the septum, where no visible scar is left, and the hemorrhage can easily be controlled by pressure. He mentioned the case where a physician in his endeavors to make a high application, lost the leech for some time until it was coughed up, and expectorated by the patient.

Dr. Mark Blumenthal thought that a great change had taken place in the treatment of inflammatory diseases of children; that at present there were few physicians residing in cities who resorted, as was formerly done, to either bleeding or blistering. He has used leeches in brain diseases and the like, but now prefers other methods of treatment, except where there is great hyperæmia. During the stage of congestion he generally prefers ice-cold applications. In the treatment of croup he prefers either ipecacuanha or the sulphate of copper to tartar emetic, only using the latter for its emetic effect. When there is a full pulse and considerable febrile movement, he administers digitalis, and sometimes veratrum viride. In inflammatory diseases of the brain, throat, and pulmonary organs, good results are produced by mercurials frequently administered in minute doses. Prefers large sinapisms to blisters, also warm water applied over a large cutaneous surface. He does not use applications of ice to the abdomen during an inflammation, preferring large, hot flax-seed poultices, which he has seen produce remarkable results. With reference to quinine and iron, although he does not consider them, properly speaking, antiphlogistic remedies, yet he often uses them in inflammatory diseases, more especially for their tonic effects, where they are oftentimes of great service by enabling the patients to withstand the disease, and to convalesce more rapidly.

Dr. H. P. Farnham said that he had been much pleased with the effects produced by aconite in the treatment of inflammatory diseases of infancy. As a hypnotic, he has given the hydrate of chloral in one and a half grain doses to children six months old. He stated that although more palatable when given in combination with a syrup, yet it was prone to decomposition, to prevent which he usually added a few drops of chloroform to the mixture.

Dr. Sewall stated that in treating inflammatory diseases of children it was necessary to begin early in guarding against debility. He regarded the treatment by counter-irritation as very important. For several years past he has ceased to use the tincture of aconite for young children, on account of the bad effects noticed.

Dr. C. Prince spoke of the effect of hot water in arresting hemorrhage, and mentioned a case of cancer

of the uterus from which the hemorrhage was very troublesome. Astringents and sedatives were used without benefit. The patient fell into the hands of another medical man, who applied hot water locally, with the effect of promptly checking the hemorrhage.

Dr. Hubbard does not abstract blood as much as he formerly did, and now prefers that treatment which promotes soonest a diaphoretic effect. In pneumonia he uses hot poultices, followed by the oil-silk jacket. Opium and veratrum viride are his favorite remedies in peritonitis.

Dr. Church stated that his inclinations were different from many in the profession, who think that in minute doses of aconite they have an antiphlogistic remedy replacing other active drugs and the use of the lancet. In the early stage of pneumonia and pleurisy he has often prevented the unpleasant sequelæ which often occur, by bleeding.

Dr. H. D. Bulkley has for many years used large sinapisms, followed by the oil-silk jacket. In regard to veratrum viride, he had a patient admitted to the New York Hospital with traumatic pneumonia, where fifteen drops of Norwood's tincture were given at a dose. He has often given ten drops, which produced a happy effect. He believed membranous croup to be a very rare disease.

Dr. G. M. Smith believes we have articles in the materia medica which in most cases can be used to advantage where bloodletting was formerly resorted to. He remembered Dr. Wood, several years ago, to have stated that a great change had taken place in fibro-serous disease; and on post-mortem, where formerly a large branch of fibrin would be found, now we generally see only a few particles.

Dr. Alfred Underhill thinks that diseases have changed during the past thirty years, when the best physicians both bled and made free use of leeches. During an active inflammation he would now bleed and give calomel. He is also very fond of using the veratrum viride.

Dr. E. R. Peaslee said that he did not accept alcohol as an antiphlogistic remedy, and thinks that those who call it such might go farther and call beef-tea by the same name. When he gave brandy in advanced pneumonia, it was to sustain the patient. Alcohol is given to sustain the nervous centres. When we are afraid that our patients will die from a stasis of the blood, he would give alcohol, not as a nervous antiphlogistic, but as a stimulant. Antiphlogistics to him are those remedies that modify the inflammatory results. Inflammation to him is an acute process that lasts only for a short time, after which we may have congestion that may exist for a period of time or the products of the inflammation. He mentioned the experiments of Louis upon the cases of pneumonia admitted to his hospital. In those cases where he bled during the early or acute stage of the inflammation his patients would usually pass comfortably through the disease; while in those cases where the disease had gone on unchecked for four or five days the convalescence was protracted for five or six weeks. He thought, therefore, that when bloodletting was of any use, it should be done at once—as soon as the inflammation is recognized—and not resorted to for the relief of the products of inflammation.

In answer to a question by Dr. A. C. Post, as to what was the condition where a cilium remained in the eye, or where a constant irritation existed—as, for instance, a fish-bone lodging in the rectum, he stated that we may have a succession of inflammations, causing chronic congestion. Suppuration may occur without inflammations, as is seen in the flap. Inflammation, to his mind, was a distinct process. He would not call the healing of wounds by adhesion the consequence of an inflammation. In every part where we have an inflammation there is an increased amount of blood, perhaps pain, whereas the increased heat may not be detected. We are all taught that an inflammation of the brain is a very serious process; yet we would be unwilling to admit that it always follows an injury, even where a portion of the skull has been kicked away by a horse, and part of the brain-tissue cut off. In an inflammation we have an increase of the fibrin of the blood.

Dr. Roberts inquired how this fibrin was produced. Virchow states that it is derived from the connective cells.

Dr. Peaslee said that some think that the excess is all manufactured in the inflamed part. During an inflammation there is no growth, but a loss of tissue, and the idea of fibrin being a débris he regards as ridiculous, as we cannot under any circumstances call it an effete material.

POISONING BY CHLORAL, ETC.

Following the report of Dr. Leale, Dr. Hubbard related a fatal case from the use of ninety grains of hydrate of chloral. The patient was a female, about twenty-eight years of age, and had taken the chloral through the advice of a female friend, to procure sleep. The prescription had been repeated at a neighboring drug-store, and read: "two drachms of hydrate of chloral in three ounces of water." Tablespoonful to be used as directed.

Dr. Roberts stated that there was some uncertainty as to the quantity required for a dose of chloral, and the right time to use it, and he wished the members would give their views in relation to it.

Dr. Stephen Rogers said that it did not appear to him that the case related by Dr. Hubbard could be called an authenticated case of poisoning by chloral, as no post-mortem was made of the brain, heart, etc.

In regard to the symptoms of chloral poisoning, he recollected when a wife of a Fellow of the Academy had taken one hundred and fifty grains within a period of nine hours, the symptoms were like those of poisoning from belladonna. There was delirium and unconsciousness for several hours, with no ability to respond after partial consciousness had returned. In this case the poisonous symptoms were noticed at the third hour.

Dr. Roberts remarked that it appeared to be accumulative.

Dr. J. C. Peters exhibited maps illustrating the present course of cholera in every town throughout the world, with the exception of Constantinople, where it has just broken out. It requires about two years for cholera to travel through Asia. He thinks that a slight epidemic will reach New York by next spring.

THE PREVENTION OF ABORTION.

Dr. Stephen Rogers, in alluding to the subject of abortion, read the obligations of the Berks Medical Society of Penn. to the Academy, for first moving in the matter at a previous meeting, and stated that recent occurrences had come to pass which demanded that the Academy take the advance again in passing resolutions in regard to the crime of abortion. He next read resolutions pledging all the influence of the Academy in suppressing this crime, which were adopted. At the instance of the author of the resolutions, the following committee were appointed by the chair to modify them, if need be: Drs. Stephen Rogers, E. R. Peaslee, and W. C. Roberts.

The resolutions were ordered to be published in the New York medical journals and daily papers.

The Vice-President announced that Dr. Sigismund Waterman would read a paper, Oct. 6th, on "The Solar Spectrum as an Application to Medical Science."

The Academy then adjourned.

Correspondence.

TREATMENT OF BURSÆ ON PALM OF HAND AND FRONT OF WRIST.

To the Editor of the Medical Record.

Sir—In the issue of your Journal for March 1st appeared an article by Prof. Frank Hamilton, on the nature and treatment of bursæ on the front of the wrist and palm of the hand. Touching treatment he says: "I am persuaded, however, from my own experience, that no surgical interference is ever proper, except it be to open the sack freely, whenever suppuration is imminent or has already taken place." He also says that pressure may be resorted to, but thinks that generally it will be best to leave these cases entirely to nature. A number of cases are detailed, and most of them, it seems to me, are so exceedingly imperfect and unsatisfactory in their history as to render them useless for the purpose of illustration or for aiding us in determining a proper treatment in which death or serious trouble followed an operation.

Now, Dr. Hamilton is distinguished authority, and his opinions and advice always carry weight. Few surgeons perhaps, unless of large experience, would care to risk an operation on one of these cases, after reading the above opinion of Prof. H., backed by the unsuccessful and even fatal cases he cites. And yet the disease is often a very annoying one if allowed to progress, being usually accompanied by considerable pain, and the use of the hand being not unfrequently impaired in no small degree; to say nothing of the unhandsome appearance, especially in the female, and the constant danger of suppuration being produced, and very serious consequences resulting from contusion or other injury. It is desirable, then, to rid our patients, if we can do so safely, of these annoying tumors. Rarely can they be cured without an operation. Is surgical interference, as incision, excision, injections, the seton, etc., so fraught with danger to the patient as to render it unjustifiable? From Dr. H.'s article it would seem to be so. In our surgical works, however, active interference is generally advised, and few serious accidents are recorded.

Mr. Syme recommends even so severe a procedure as laying open the cyst and dividing the annular ligament. Mr. Erichsen sometimes injects iodine, and sometimes uses the seton. He prefers the latter method. When the tumors are large, and situated on the sole or side of the foot, he advises excision of the sack. Dupuytren resorts to incision in palm and wrist, with introduction of seton. Malgaigne has seen death result from this proceedure. Whether death would not have probably resulted, on account of some peculiar condition of the patient, after many other comparatively small operations, we are not informed. The same remark may be applied to the fatal cases cited by Dr. Hamilton. Malgaigne advises a small incision into the cyst, and then subcutaneous incision of the sack at several points. Gross' method of operating is essentially the same. When milder means fail, he recommends that the sack be cut up as minutely as possible with a delicate bistoury inserted subcutaneously. These are the principal operations that are resorted to; but as we have no intention of entering at length upon the subject, we forbear to cite further authorities.

We beg leave, however, to briefly relate the history of a case in point, the termination of which will show, so far as a single case can, the safety of operative interference and the beneficial results thereof.

My brother G. J., now æt. 31, grocer, healthy, about five years ago received a rather severe injury of right wrist joint. He supposed the injury to be a sprain, and it passed as such, in due time recovering, without other interference than the application of domestic remedies. The joint, however, was not restored to its full strength, and the tumor formed by the head of the ulna was perceptibly diminished in size. It now appears that the ulna was separated from its attachments to the neighboring parts, or the epiphysis separated from the bone, and the ulna has ever since remained very movable. Some months after this injury a tumor appeared on the front of the same wrist, immediately above the annular ligament, and this tumor increased in size continually for years, notwithstanding the employment of pressure, iodide of lead ointment, etc. Pain existed, but not in any very great degree. The power of the joint, however, after a time became materially impaired, and great annoyance was caused by the hand "going to sleep" when left in one position for even a few minutes, while a sensation of numbness was almost constantly present. After a year or two another tumor appeared in the palm of the hand, which on examination was found to communicate under the annular ligament with the tumor on the wrist, and latterly the contents of either cyst could be readily pressed into the other. About one year ago, which was about four years after the injury to the joint, the tumor of the wrist, when pressure was exerted in the palm, was the size of half a pullet-egg. At that time, by my advice, my brother consented to an operation, which was performed by Dr. W. B. Allen, of this city. A longitudinal incision one and a half inch in length was made in the wrist, above the annular ligament, the sac freely opened, its contents expressed, and then a portion of the sack itself, at least one square inch in size, was removed with the knife. This sack was nearly ¼ inch in thickness. The contents of the cyst consisted of a heaping tablespoonful of ovoid, yellow, opaque bodies, smooth and glistening, quite hard, but could be broken up between the fingers; and they varied in size from a small melon-seed to a large lima bean. Cold-water dressings were kept applied to the wound for a day or two; no suture was used. Speedy union occurred, and perfect recovery resulted, with scarcely the soreness of a simple cut of the hand experienced. The usefulness of the hand is in a large measure restored, and no unpleasant sensation is ever felt. Were it not for the original injury to the ulna, the joint would be as perfect as the other.

It is interesting to inquire what would have been the final result in this case had Prof. Hamilton's treatment, viz. "leave entirely to nature," which was pursued for four years, been continued. Would not the case have progressed, until the hand, whose functions were much impaired already, had become entirely useless? Or would suppuration have occurred, and permanent contraction of the fingers, or some worse evil resulted?

It may be of interest to state that a small tumor, similar in character, appeared on the other wrist of this patient about one month ago. We shall feel very much like resorting to an operation in this case, at least to a simple incision, if it progresses at all rapidly. At present it gives no annoyance.

Yours, etc., S. L. Jepson, M.D.

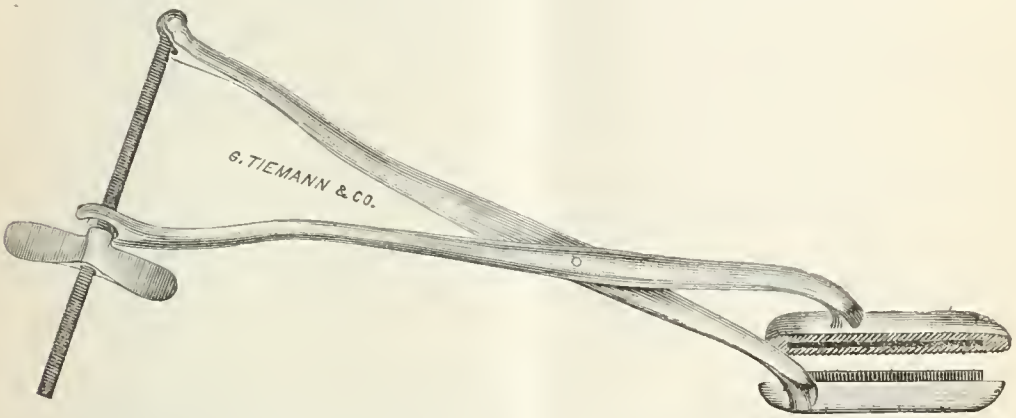
New Instruments.

RECTILINEAR ÉCRASEUR.

By J. C. NOTT, M.D.,
NEW YORK.

The last lecture I heard from M. Nélaton, in Paris, was on the use of the *écraseur linière* of Chassaignac for removal of hemorrhoidal tumors. He made two fatal objections to it:—1st, in internal hemorrhoids it is sometimes followed by dangerous hemorrhage; 2d, from the amount of tissue embraced it not unfrequently causes stricture of the anus. These objections I can fully endorse from my own observation.

About twelve months ago I contrived a *rectilinear écraseur*, which I think, properly employed, is free from the above objections, and fulfils all the indications better than any operation yet devised. It is almost entirely free from subsequent pain.



A glance at the above drawing will show that this instrument has two parallel blades coming together like a clamp. One blade has a narrow fenestra running its whole length of about three inches, and the other presents a rough edge (like a fine saw) so constructed as to pass into and fill up the fenestra when the clamp is closed. There is a shoulder projecting on each side of the blades, for the purpose of crushing more perfectly the tissues operated upon, a little beyond the thin edge of the blade.

This instrument does not completely sever the tissues (as does the écraseur of Chassaignac), but crushes them down to a very attenuated pulp. If the hemorrhoid is within the sphincter, it is safest to tie a ligature in the sulcus made by the écraseur for fear of some secondary hemorrhage—the tissue is so compressed that a very small pedicle is left for the ligature, and the vitality of the part being completely destroyed the *ligature causes no pain*, and the tumor drops off in a day or two. I cut away with scissors the part of the tumor outside of the ligature at the time of the operation.

I removed five internal hemorrhoids, at one sitting, from a patient, a few days ago, in the presence of Drs. Keyes, Castle, Yale, and Dudley, and after the effect of the anæsthetic passed off, the patient never complained of pain. This is a result which is impossible after ligatures. The clamp and actual cautery used by some surgeons give good results, but are much more troublesome.

Where the hemorrhoids are external, instead of using a ligature I clip them off with scissors as soon as the clamp is removed.

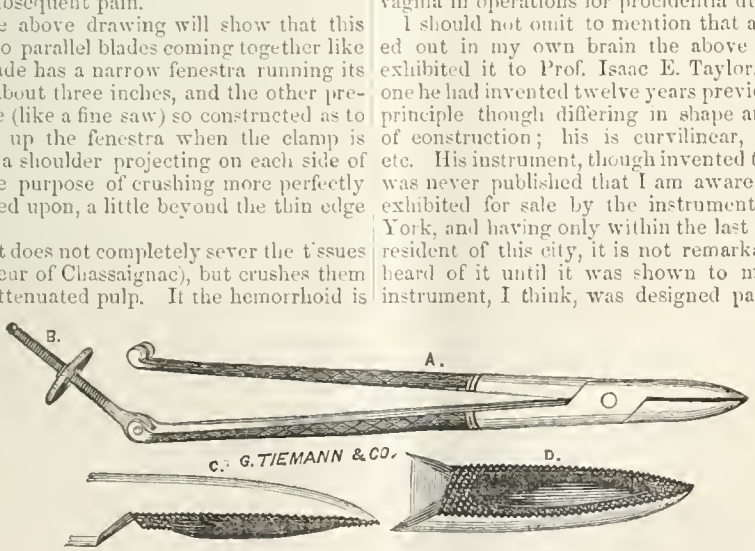
The principal advantages of this instrument are:—

1st. It is easily and rapidly applied, and requires much less time in its action than that of Chassaignac.

2d. It removes in a *right line* the exact amount of tissue desired, and *is not* followed by pain.

This instrument is applicable to the tongue, cervix uteri, penis, tumors on cervix uteri or vagina, the vagina in operations for procidentia uteri, etc.

I should not omit to mention that after I had worked out in my own brain the above instrument and exhibited it to Prof. Isaac E. Taylor, he showed me one he had invented twelve years previously, identical in principle though differing in shape and some minutiæ of construction; his is curvilinear, mine rectilinear, etc. His instrument, though invented twelve years ago, was never published that I am aware of, has not been exhibited for sale by the instrument makers of New York, and having only within the last four years been a resident of this city, it is not remarkable that I never heard of it until it was shown to me by him. His instrument, I think, was designed particularly for the removal of uterine growths; but although the principle is excellent, I think the size and shape make it inconvenient and inapplicable in most cases where an écraseur can be used.



I have also had a pair of artery forceps constructed on the same principle, for arresting hemorrhage in arteries. About both these instruments I shall have more to say on a future occasion.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from September 19, 1871, to October 4, 1871, inclusive.

Head, J. F., Surgeon and Medical Director.—By S. O. 212, Department of Dakota, Sept. 16, 1871, granted leave of absence for twenty days.

Heger, A., Surgeon.—By S. O. 212, Department of Dakota, C. S., to perform duties of Medical Director during temporary absence of Surgeon Head.

Clements, B. A., Surgeon.—By S. O. 59, Mil. Div. of the South, Sept. 27, 1871, leave of absence extended fifteen days.

McKee, J. C., Surgeon.—By S. O. 205, Department of the East, Sept. 27, 1871, granted leave of absence for twenty days.

McClellan, Ey., Assistant Surgeon.—By S. O. 383, War Department, A. G. O., Sept. 30, 1871, granted leave of absence for thirty days, with permission to apply for an extension of sixty days.

Middleton, P., Assistant Surgeon.—By S. O. 196, Department of the South, Sept. 16, 1871, assigned to duty at Frankfort, Ky.

Tremaine, W. S., Assistant Surgeon.—By S. O. 167, Department of the Mo., Sept. 18, 1871, granted leave of absence for thirty days.

Monroe, F. Le B., Assistant Surgeon.—By S. O. 166, Department of the Platte, Sept. 22, 1871, assigned to temporary duty at Fort Laramie, Wy. Ty.

Girard, J. B., Assistant Surgeon.—By S. O. 370, War Department, A. G. O., Sept. 21, 1871, leave of absence extended sixty days.

Lauderdale, J. V., Assistant Surgeon.—By S. O. 368, War Department, A. G. O., Sept. 20, 1871, relieved from duty in Department of Arizona and to proceed to New York City.

Kimball, J. P., Assistant Surgeon.—By S. O. 210, Department of Dakota, Sept. 14, 1871, leave of absence granted for thirty days, with permission to apply for an extension of sixty days.

Fitzgerald, J. A., Assistant Surgeon.—By S. O. 170, Department of the Mo., Sept. 22, 1871, assigned to temporary duty at Fort Harker, Kans.

Cowdrey, S. G., Assistant Surgeon.—By S. O. 170, C. S., Department of the Mo., to accompany 6th Infantry to Camp Supply, Ind. Ty., and, on arrival, report to Commanding Officer for assignment to duty.

Cherbonnier, A. V., Medical Storekeeper.—By S. O. 364, War Department, A. G. O., Sept. 18, 1871, assigned to charge of Medical Purveying Depot at San Antonio, Texas.

Medical Items and News.

The Academy of Medicine and the Abortionists.—At a meeting of the New York Academy of Medicine held on the 21st September, 1871, the following preamble and resolutions were unanimously adopted:—

Whereas, In charging the Grand Jury, on September 6th inst., Judge Gunning S. Bedford said: "Of late, we have been living in an atmosphere of abortion. The very air is indeed heavy with the dark deeds of these heartless and unscrupulous specimens of human depravity, professional abortionists. Let the warning word this day go forth, and may it be scattered broadcast through the land, that from this hour the authorities, one and all, are to put forth every effort and strain every nerve until these traffickers in human life be exterminated and driven from existence, by fully vindicating the majesty of the law in all of these cases of its fiendish violation. Let me express the earnest hope—shared in as I feel confident it will be by you, and by all right-minded citizens—that the Legislature at its next session will amend the statute-book, so that instead of reading, 'any person who shall administer to any woman with child, or prescribe for any such woman, or advise or procure her to take any medicine, drug, substance, or thing whatever, or shall use, or employ any instrument, or other means whatever, with intent thereby to procure the miscarriage of any such woman, unless the same shall have been necessary to preserve her life, shall, in case of the death of such child, or of such woman, thereby produced, be deemed guilty of manslaughter in the second degree,' it may read, '*shall be deemed guilty of murder in the first degree.*' Then the punishment would be death. Now the crime being simply manslaughter in the second degree, the punishment is only imprisonment not exceeding seven years."

Resolved, That in the opinion of the New York Academy of Medicine, the author of that language has, by so public a declaration of his sentiments, his intentions, and his hopes, given us reason for renewed expression of highest commendation; has vindicated the already widely expressed support from the medical profession of the country of the course he has hitherto pursued, and has, we trust, greatly strengthened the esteem and confidence in which he is held by the public.

Resolved, That this Academy, in the discharge of the duty its professed objects command—to promote public health and public morals—pledges all its influence and efforts in support of any legislative or other measures which our law officers may propose as offering a reasonable promise of mitigating, if not of removing, the pestilence of criminal abortion which is upon our country.

Resolved, That to remove all doubt from the public mind in regard to the position of the New York Academy of Medicine in this important matter, to secure the influence upon the State authorities desired by this expression, and to stimulate the medical profession generally to similar acts, a copy of this preamble and these resolutions be forwarded to Judge Bedford, to District-Attorney Garvin, and to the New York Bar Association; that the leading daily papers of this city and its medical journals be furnished with the same; and that the secular and medical papers and journals throughout the county be requested to copy.

Goitre in Minnesota.—Goitre has claimed considerable attention by the surgeons in Minnesota, and is reported to be comparatively prevalent. Dr. J. B. McGaughey, of Winona (*Trans. Minn. Med. Soc.*), attributes the cause, in that part of the State, to calcium and its salts in the water. Dr. Milligan, of Wabasha, says that among Germans goitre is very common; no cure has been effected in adults when the disease existed prior to residence there, but in those before the age of puberty cures may be effected. Dr. Ames, of Minneapolis, reports 20 cases in five years. The water is impregnated with carb. and sulph. of lime, and magnesia. Dr. S. Blood, of Owatonna, finds goitre most prevalent among Germans; and Dr. L. Redmon, of Preston, finds it quite prevalent among Norwegians, and regards high northern latitudes as productive of the disease. *Treatment*: Soft water to drink, and iodides internally and externally.

Menstruation in a Woman Aged Sixty-four Years.—Aberrations of this kind occur occasionally; they differ from those cases of prolonged menstrual period, which are more frequent, and which physicians meet with, and have on account of their rarity and peculiar nature a claim to passing notice. During the late summer Dr. Thomas R. Dupuis, Odessa, Ont. (*Canada Lancet*), attended a woman with menorrhagia over 56 years of age, and from statistics it is found that perhaps one or two in a hundred may retain this function up to 50, 60, and even 70 years of age, the proportion growing less with the increase of years. Dr. Dupuis' patient, however, had ceased to menstruate between the ages of 45 and 50, and had no symptoms of any return of the catamenia from that time till the period of discharge here referred to, March 25th, 1871; she being then 64 years of age. He saw her August 9th, and up to that time she had had no signs of any return of the catamenia.

Severe Medical Examinations in London.—Out of sixty-eight candidates who presented themselves before the Royal College of Surgeons, England, in May last, twenty-seven were rejected.

Extirpation of the Kidney.—Prof. Simon, of Prussia, has successfully extirpated the left kidney entire, from a lady residing in Savannah, Georgia. This makes the *third* operation of the kind that Prof. Simon has performed successfully.

The Successor of Niemeyer.—The chair vacated by the death of Prof. Niemeyer, of Tubingen, is filled by the election of Prof. Leibermeister, of Zurich.

The Vienna Medical School.—About two thousand persons, including between fifty and sixty American physicians, annually attend the lectures of the one hundred professors and assistants of the Vienna School of Medicine.

Transactions of the Minnesota State Medical Society.—This pamphlet contains the proceedings of the Annual Meeting of the Minnesota State Medical Society, which was held in St. Paul, February 7th and 8th, 1871, with the following creditable papers:—Case of Ovarian Tumor, by D. W. Hand, M.D., St. Paul; Remarkable Medullary Tumors, by A. E. Senkler, M.D., St. Cloud; Case of Tubular Pregnancy, by W. W. Mayo, M.D., Rochester; Dislocation of the Hip, reduced by Manipulation, by Solomon Blood, M.D., Owatonna; Post Natal Atelectasis, by S. D. Flagg, M.D., St. Paul; Case of Elephantiasis Græcorum Tuberculorum, by Chr. Gronvald, M.D.; Case of Glanders in the Human Subject, by H. Galloway, Rochester, Minnesota; and Report of the Committees on Surgery, on Analysis of Plant supposed to be the Wild Parsnip, on Practical Medicine, and on Epidemics, Climatology, and Hygiene. This new Society has one hundred and twenty-eight working members, and has the following officers:—*President*, Franklin Staples, M.D., Winona; *First Vice-President*, F. H. Milligan, M.D., Wabashaw; *Treasurer*, S. B. Sheardown, M.D., Winona; *Corresponding Secretary*, Albert E. Senkler, M.D., St. Cloud; *Recording Secretary*, Charles E. Smith, M.D., St. Paul.

The Diseases of Iceland.—Dr. Hjaltelin, of Iceland (*The Gynæcology of Iceland*), says that insomnia is most prevalent in Iceland during the short days of winter. Cancer of the uterus is unknown there, while mammary carcinoma is very common; scarlet fever never occurs, while measles is very prevalent; pulmonary phthisis is seldom or never seen in the native inhabitants, while epidemics of influenza are frequent and extraordinarily fatal, and true hydatids are of almost universal occurrence.

The Foundling Hospice of Moscow.—Dr. de Valcourt, writing from Russia to the *Gazette Médicale* of Paris, mentions some interesting facts regarding this institution, which is sustained on a magnificent scale.

It is capable, he says, of accommodating one thousand infants. Each foundling has a nurse for itself. The nurses are mostly peasants, who, for a salary of about $140, come to Moscow, remain in the hospital in the care of the child given to them until it is vaccinated, then, going to their homes, they take the baby with them. If the child becomes sick, they can return with it to the hospital and remain with it themselves. Notwithstanding the expense of this system the mortality is frightful. For example, in the year 1870, 14,295 babies were offered at the hospice. Of this number 634 were refused; 10,661 being admitted, of this latter number, 7,660 were less than five days old. The mortality in both hospice and villages was 66.5 per cent. for infants of from 1 day to 28 days, and 80 per cent. before 1 year. This sad result is obtained notwithstanding the cleanliness and good care to which the infants are subjected at the hospice, and the *surveillance* in the village chosen for the nurse.

Infants aged less than five days are easily admitted to the hospice; but if the umbilical cord has separated, it is necessary to present a certificate of baptism and give answers to certain questions. The child once admitted, the administration refuse to inform the mother regarding the whereabouts of the child, only saying if it is living or dead. If she desires to retain it, it is necessary to make a petition to that effect, and sometimes to pay an indemnity, without which the infant will not be returned, the mother not being allowed to see it until it is decided to restore it to her. The mothers of the children are thus induced to place their infants in the hospice as soon as they are born, and before their maternal love has become developed. On the other side, the babes are confided to the care of the women whose only motive is to earn this paltry sum, knowing that if the infant dies, no reproach rests upon them, and that they will be given another child.

National Medical College, Washington, D. C.—Drs. Antisell (who recently sailed for Japan) and Crosby have resigned their chairs in this institution. To the vacancies thus created Dr. W. W. Johnston has been elected to fill the chair of Theory and Practice of Medicine; Dr. A. F. A. King to that of Obstetrics and Diseases of Women and Children; and Prof. Fristoe to that of Chemistry.

Death of Prof. Robert Bentley.—This distinguished scientific and literary man of England, died September 13, 1871. He was an honorary Fellow of King's College, London, and was noted as a botanist. He was born in the year 1821. In 1847 he became a member of the Royal College of Surgeons. He was Dean of the Medical Faculty, Professor of Botany in King's College, London, Professor of Materia Medica and Botany in the Pharmaceutical Society of Great Britain, Professor of Botany in the London Institution, and formerly Lecturer on Botany at the Medical Colleges of the London, Middlesex, and St. Mary's Hospitals. He was a long time a member of the Council of the Royal Botanic Society, was President of the British Pharmaceutical Congress in 1865, and was re-elected to the same office in 1866. He was a frequent contributor to the *Pharmaceutical Journal*, and was one of its editors, was the author of a Manual of Botany, and with Dr. Farre and Mr. Warrington, edited Pereira's *Manual of Materia Medica and Therapeutics*. Mr. Bentley was the sole proprietor and publisher of the *Temple Bar* magazine.

Cases of Puerperal Mania in St. Petersburg.—Prof. Freiderich Weber, of St. Petersburg, Russia, asserts that from 1856 to 1865 he made a careful report of forty-six cases of puerperal mania, one of the rarest phenomena of childbed, which occurred at Obachow Hospital, twenty-three of which he treated himself. Scanzoni reports at Wurzburg only five cases in the course of forty years. The majority of Dr. Weber's cases were between the ages of twenty and thirty; twenty-five out of the forty-six, or fifty-six per cent. He affirms from data that young women are especially predisposed to puerperal mania. Frequent births in young women predispose to puerperal mania, for the reason that it induces a condition of anæmia. Of these forty-six cases, there were cured, 23; discharged convalescent, 15; died, 8.—*Journal Gynæcological Society.*

The Syrian Medical College.—Dr. E. R. Lewis, of Beirut, Syria, writes that, at the commencement exercises of this new medical college, six medical students received diplomas. Eleven appeared for the final examination, but the test was so severe that five were rejected.

Cholera Infantum in Philadelphia.—From 1835 to 1845, in Philadelphia, the number of deaths among children under 15 years of age was over 25,000; and of these more than 2,500, or one-tenth, died of cholera infantum alone.

New Specimens in Botany.—So thoroughly have plants been classified and named, that the multitude of attentive English botanists failed to discover one new specimen to add to the flora of Great Britain during the past year. Scottish Highlands, Irish bogs, English downs, the mountains of Wales, the cliffs of the Orkneys, and the meadows of the Channel Islands, have all been searched in vain for an unknown plant.

Lancing the Gums in Difficult Dentition.—Dr. Hatch, of Sacramento, Cal., recently reported four cases of fatal hemorrhage from lancing the gums in children who were already diseased, and who had taken calomel.

The Medical Societies of New York City and Brooklyn.—According to the *New York Medical Register* for 1871–72, the number of active members of the subjoined Medical Societies of the cities of New York and Brooklyn is as follows: Medical Society of the County of New York, 364; New York Academy of Medicine, 288; New York Pathological Society, 161; Society for the Relief of Widows and Orphans, 142; Medical Library and Journal Associations of New York, 262; New York Medico-Legal Society, 114; New York Physicians' Mutual Aid Association, 270; and Medical Society of the County of Kings, 183.

Statistics of Philadelphia.—The total number of interments returned by the Board of Health for 1870 was 16,750. This is an increase of 1,964, or 13.28 per cent. over 1869, which gives one death to every 40.24 inhabitants, or 2.41 per cent. Of the deaths recorded, there were 8,717 males and 7,963 females, showing an excess of 824 males, or 10.35 per cent. Scarlatina contributed most to the increased number of deaths in 1870, which caused 956 deaths, 157 more than in 1869, and far more than in any preceding year.

Contraction of Heart and Arteries.—In the Hastings Prize Essay, Dr. Fothergill teaches us that, in cases of poisoning by digitalis, the heart and arteries alike contract to an extent proportioned to the dose given.

Control of Hemorrhage by Ipecac.—Wm. Martin, M.D., M.R.C.S., Billingsville, Indiana (*N. Y. Med. Journal*), reports a case of injury to right tonsil, attended with hemorrhage, controlled by the administration of *small doses* of ipecac, until a gentle vomit ensued. Natural plugging followed after contraction of tissues. He has also tried it many times in obstinate contraction of the uterus, and never experienced ill effects.

A Rare Malformation in the Brain.—In demonstrating a brain recently to one of his dissecting classes, W. W. Keen, M.D., of Phila. (*Am. Journ. Med. Sciences*), met with the following malformation, the first of which he believes to be very rare. 1st. The *fornix*, instead of being solid from side to side, consisted of two lateral halves, with a triangular space between them. This space was 1⅛ inch long by ⅛ of an inch wide. It began just at the posterior border of the fornix, where the two posterior pillars were barely united, and reached nearly to the anterior pillar, where also slight union existed between the two halves. Through the opening the velum interpositum was seen. 2d. The *fifth ventricle* was exceedingly large—the largest he had ever seen. It measured ⅛ of an inch wide, and 1⅛ inch long. Neither this ventricle nor the lateral ventricles were in any way diseased or distended with fluid. The dura mater corresponding to the right parietal bone was ossified in its outer layer. The anomaly noted in the fornix points, doubtless, to its normal origin and development by two lateral halves, whose separation is marked usually by the divergence of the anterior, and posterior pillars only.

Resection of the Long Bones.—Dr. Joseph W. Thompson, Paducah, Ky., writes that he is preparing a report on Resection of the Long Bones, and any assistance which may be given by the profession will be appreciated. Those cases performed during our late war are especially desired, as sufficient time has now elapsed to make practical deductions from that class of cases. The notes of the cases should be in the following form: Date of wound, and at what battle wounded? Date of operation, and with what kind of missile was the wound inflicted? Where is the seat of resection? How many inches of bone were exsected? Has bony union occurred? What is the extentof the shortening (measure accurately) of the limb? Are the functions of the limb impaired? Is it better than no limb? Do abscesses continue to form around the seat of resection? Do you know of any resected limbs that have been cut off as nuisances? Do you know of any deaths resulting from the resection? Give the name and post-office address of the case, and the condition of the limb at this time. Also, the post-office of the operator.

Obstinate and Fatal Dysentery.—The most obstinate and fatal disease with which the physicians of the English Hospital at Metz, in the late Franco-Prussian war, had to deal with, was dysentery of a very chronic character. The patients were treated first by chlorodyne or opium, with occasional doses of castor-oil; no permaneut relief followed this plan. Opium allayed pain and gave sleep temporarily, but the disease was not influenced. The ipecacuanha treatment was then tried, and with fair success; doses of five to fifteen grains of the powder were given three or four times a day; it rarely caused vomiting, except at the first dose, sometimes not even then. The spasm and pain were in most cases relieved after a few doses, and the patients greatly improved. Sulphuric acid and opium, with occasional injections of sulphate of copper and opium, appeared to assist in completing the cure.—*Corresp. Med. Times and Gazette.*

Original Communications.

INFLAMMATION OF THE CAPSULE OF TENON.

A Paper read before the Medical Library and Journal Association, October 13, 1871.

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Inflammation of the fibrous capsule of the eyeball is of comparatively rare occurrence as a primary affection, though it is usually present in all cases where the globe has been destroyed by a suppurative panophthalmitis. The first detailed account of this affection ever written was published by Dr. O'Ferrall in the *Dublin Quarterly Journal of Medical Sciences* for 1841, but I have unfortunately been unable to obtain a copy of it. The subject is mentioned by very few authors, and there seems to have been very little known about it. The little attention which it has attracted may perhaps be explained by the fact that an idiopathic case is of very rare occurrence, and when the inflammation sets in as a complication or necessary consequence of a panophthalmitis, its symptoms are covered up and embraced by those of the greater affection, and hence the subject is overlooked.

Mackenzie says: This affection is generally considered to be of a rheumatic nature, though it may have a traumatic origin. It is characterized by the following symptoms: Pain in the eye, forehead, and temple, which rapidly increases in violence, and in the course of two or three days becomes insupportable. It is liable to severe exacerbations, and is compared by the patient to the feeling as if the eye were being dragged out from its socket. In this state the patient cannot bear the slightest pressure from the fingers or hands of another person, though he frequently experiences relief by pressing his hand against the superior orbital margin. The pain may prevent sleep for several nights in succession. The eyeball is protruded from the orbit, sometimes as much as three-quarters of an inch, and the power of motion is very much limited, and may even be entirely lost. The conjunctiva of the eyeball is protruded all round the cornea in the form of chemosis, but is not vascular. The eyelids become œdematous and reddened. The swelling and discoloration of the upper lid are limited above by a well-defined line, with about half an inch of pale skin between it and the margin of the orbit. This shows that the affection is confined within the ocular capsule. The eyelids cannot be closed. The cornea and iris are perfectly healthy, and though the patient frequently complains of flashes of light, the vision usually remains unimpaired.

The eye may recover either completely or incompletely, without the formation or evacuation of purulent matter. When the recovery is incomplete, the eyeball in some cases remains motionless, adhesion having taken place between the sclera and ocular capsule, while the thecæ of the muscles and the orifices through which they pass have become consolidated in consequence of the inflammation. If pus collects within the capsule, the fold between the eyeball and eyelids is obliterated, and a swelling appears, which, if not opened, may burst spontaneously. The affection may be diagnosticated from periostitis of the orbit, by the fact that direct pressure upon the bone causes no pain, and from phlegmonous inflammation of the orbital tissues, by the swelling which attends it appearing in the tarsal and not in the orbital portions of the lids.

Bader* says: This affection accompanies every acute ophthalmitis, and occasionally occurs also in cases in which a large portion of the sclera has been exposed during the operation for strabismus. Slight impairment of the mobility of the somewhat protruded eyeball, and swelling and redness of the subconjunctival tissue and sclera, are observed.

Soelberg Wells† says: The fibrous capsule which envelops the eyeball is occasionally subject to inflammation. This affection is especially distinguished by the appearance of a more or less marked chemosis round the cornea, there being at the same time considerable conjunctival and subconjunctival injection. There is no apparent cause for this injection, as the cornea and iris are unaffected, and the sight and field of vision are normal. The eyelids are sometimes red and swollen; the eyeball is slightly protruded, and at the same time there is a certain impairment of its eccentric movements, and here diplopia arises. The pain may be somewhat severe, but is never as bad as in periostitis of the orbit. The progress of the disease is usually slow. Though generally of a rheumatic origin, it is also seen in cases of irido-choroiditis supervening upon operations, especially that of extraction for cataract. It may also follow the operation for strabismus, if the sclera has been much exposed, or the capsule of Tenon too freely incised.

According to Wecker,‡ inflammation of the capsule of Tenon, as a distinct disease, independent of any other, is a rare affection. When it supervenes upon an operation for the extraction of cataract, it generally results from suppurative irido-choroiditis; and the enucleation of an eye under such circumstances, for sympathetic trouble in the fellow-eye, is by no means unattended with danger, for the capsule, suddenly exposed to the air, may continue to furnish inflammatory products, and the phlegmasia is propagated along the sheath of the optic nerve, and may thus cause a fatal meningitis. Capsulitis also occurs occasionally after erysipelas of the face, or sudden exposure to cold and wet.

Having thus seen what are the views of some few authorities upon this form of inflammation, it will be necessary for us to become better acquainted with the anatomy and relations of this capsule of Tenon. We know that the sclera moves within a fibrous capsule, called the capsule of Tenon, or subconjunctival fascia, which is attached to the margin of the orbit behind the suspensory ligament of the eyelids, and which farther back is merged into the sheath of the optic nerve. This capsule isolates the eyeball from the soft parts of the orbit. The muscles of the globe, loosely attached to this capsule, pass through it in order to reach the sclera. The subconjunctival tissue, anterior to the insertions of the recti muscles, is nourished by capillaries which anastomose with blood-vessels going to the ciliary muscle, and therefore over-distension of the latter betrays itself by enlargement of the vessels upon the sclera. The capsule of Tenon, in addition to being perforated by the muscles, is also traversed by vessels and nerves. Posterior to the equator the capsule is clearly defined, sufficiently resistant, and after enucleation of the eyeball, forms a species of cup or cap for the reception of an artificial eye. Anterior to the equator it only possesses a virtual existence, as it is perforated at very many points, and its thickness and resistance are much less marked. From this arrangement we may infer that posterior to the equator the capsule presents an obstacle to the spread of phlegmonous inflammation,

* Natural and Morbid Changes of the Human Eye. London, 1868.
† Treatise on the Diseases of the Eye. London, 1870.
‡ Maladies des Yeux, Vol. I. Paris, 1867.

arising in front or behind this equatorial line of separation.

As the connection between the capsule of Tenon, the sclera, and the muscles of the eye is very intimate, it may be as well to look a little more closely at their anatomical structure, with special reference to their topographical relations.

According to Brücke,* it is now well known that the sclera is not everywhere of the same thickness, being thinnest at the equatorial region, and increasing in thickness as we proceed anteriorly and posteriorly. Between the insertions of the four recti muscles it does not decrease suddenly in thickness but gradually, and it is also thinner under the tendons of the oblique muscles. At the point of entrance of the optic nerve the fibres of connective tissue which enclose its separate nervous fasciculi are closely connected with the tissue of the sclera forming the lamina cribrosa.

The sclera consists of fibres of connective tissue, which are united to form a dense, leathery membrane. Proceeding from without inwards, we find that the structure becomes constantly denser and more homogeneous, as the fibres become more and more closely united with one another. Upon the internal surface we meet with a varying number of irregularly formed pigment cells, some with processes, others without any.

The vessels of the sclera come from two sources,† viz.: 1st. From the short posterior ciliary arteries, which are branches of the ophthalmic artery, and which perforate the sclera to the number of three or four short trunks in the neighborhood of the optic nerve entrance; and 2d. From the anterior ciliary arteries, which are branches of the muscular arteries, which are branches of the ophthalmic artery, and penetrate the sclera through the tendons of the recti muscles, generally very near their insertion. The lines of insertion of the four recti muscles lie in the four sides of a trapezium. They are covered by the ocular conjunctiva and subconjunctival fascia, both of which are very vascular, deriving their blood-supply from the superior and inferior palpebral arteries, the lachrymal artery, and indirectly from the anterior ciliary arteries.

Another fact to be borne in mind is that the subconjunctival fascia is very much thicker and more abundant in the neighborhood of the superior and inferior recti muscles than elsewhere.

Having thus run over somewhat carefully the structural and topographical anatomy of the parts involved, we are better able to explain the various symptoms occurring in the progress of the disease, and the very variable course which it runs. We shall find it most convenient to distinguish three varieties of inflammation of the fibrous capsule of the eyeball, each of which has distinguishing features peculiar to itself, and each of which tends to run a somewhat different course.

1st. The *idiopathic* form.

2d. The *traumatic* form, or that which supervenes upon erysipelas of the face and upon operations, especially the extraction of cataract and tenotomy for strabismus.

3d. The *syphilitic* form.

It will not be necessary to make another division of the inflammatory process into *circumscribed* and *diffuse*, since the idiopathic and traumatic forms may be of both kinds, while the syphilitic form is, so far as we know, always circumscribed.

1st. The idiopathic form of inflammation is regarded usually as connected with the rheumatic diathesis, and might therefore be included in the same category with inflammation of the aponeurotic sheaths of the muscles and the thecæ of tendons. It may be either circumscribed or diffuse, generally the latter, does not seem to run in any particular direction, and never results in the formation of pus. The globe is not at all or but very slightly pushed forward, though it is sometimes limited in its excursive movements. The patient complains of a feeling of fulness and weight in the eye, sometimes amounting to absolute pain. The remaining tissues of the eye are perfectly normal, and there seems little cause for anxiety, except on account of the obstinacy of the affection. It usually runs a very slow course, and like all other subacute rheumatic affections, is liable to exacerbations from exposure to cold and wet. It generally subsides without leaving behind it any limitation of the excursive movements of the eyeball.

The treatment should be mildly antiphlogistic; a saline purgative followed by a Turkish or Russian Bath. Small doses of potass. iodid. and vinum colchici, frequently repeated, should be administered, and at regular intervals of three or four days a sulphur bath is beneficial.

Inflammation of circumscribed portions of the subconjunctival fascia has been observed in myopia, in tumors of the orbit or eyeball, and occasionally after exposure to cold, but does not at all differ in its symptoms from the ordinary idiopathic form.

2d. The *traumatic* form of inflammation is of somewhat more frequent occurrence than the preceding, and far more disastrous in its effects. Passing over that variety which is said occasionally to supervene upon facial erysipelas, and which is extremely rare, we may proceed directly to that variety which follows operations upon the eye. The only two operations which we know positively to have been followed by inflammation of the capsule of Tenon, are the extraction of cataract and tenotomy for the cure of squint. It is almost impossible to distinguish an inflammation of the fibrous capsule of the globe following a cataract operation from the coincident inflammation of the other tissues of the eye. For when the supervening inflammation is diffuse in character, it always takes the form of a suppurative panophthalmitis, in which all the coats of the eye are involved, or if it be circumscribed it still involves parts of most of the tissues of the globe. The operation, whether by the flaps or by the modified peripherical method of von Graefe, is almost always done either upwards or downwards, and although near the corneal margin the subconjunctival fascia is small in amount, yet there is more of it in these two places than at either the nasal or temporal side, and hence the inflammation would spread more rapidly there. It is true, the inflammatory action may first be set up in the subconjunctival fascia, but the anterior chamber being open, and the edges of the incised iris still raw, the inflammation almost immediately assumes a suppurative character, and the iris and choroid become involved. Hence we cannot regard the inflammation of the fibrous capsule occurring after the extraction of a cataract as a distinct disease, and may therefore pass it over as not pertinent to our subject.

We now come to the most frequent form of traumatic inflammation of the capsule of Tenon, that following a tenotomy of any of the muscles of the eye for the cure of squint. The operation is usually considered by the laity, and perhaps by the general practitioner, to be the simplest and least dangerous of any performed upon the eye, and yet cases do occur, and

* Anatomische Beschreibung des menschlichen Augapfels. Berlin, 1847.

† Leber, Anatomische Untersuchungen über die Blutgefässe des menschlichen Auges. Wien, 1865.

they are not very uncommon, in which unlooked for results, sometimes of a disastrous nature, are brought about by an extension of the inflammation through the fibrous capsule to the globe itself. It is very well known that clean, incised wounds, no matter in what part of the body they may be, generally heal quickly without suppuration; and in the tenotomy of a muscle, where the conjunctiva is simply incised, and the tendon divided close to its insertion in the sclera, there seems to be nothing which could tend to excite violent inflammatory action, and we must look farther and more into the details of the operation for an explanation of these unusual phenomena. As we all know, the first step in the operation is to make a horizontal incision in the conjunctiva with the scissors over the line of insertion of the muscle, and then to introduce the scissors through the wound beneath the conjunctiva, and separate the subconjunctival fascia, or that portion of it which forms the theca of the tendon, from the sclera and surrounding tissue, and this we do either above or below the line of the muscle. And here lies the great danger of an unfavorable result. By going in too far with our scissors, and separating the fibrous capsule for too great a distance in any one direction, or in several directions, from its attachments, we thus allow free access of air and blood to the parts, besides bruising the tissues themselves. We should, moreover, bear in mind what has been previously mentioned, that the subconjunctival fascia anterior to the equator of the eye is very loose in structure and small in amount, and hence would easily yield to whatever exudation was poured out by the inflamed vessels; and being nearer the external wound, the products of inflammation would more quickly find their way out, and the parts could be more easily kept clean. But if by separating the subconjunctival fascia to a great extent we pass posterior to the equator, we open up a path for the extension of the inflammation to a region where the fibrous tissue is much more dense and vascular, and where the products of inflammation cannot easily make their way out, and thus by their presence act as a foreign body, keep up the irritation, the vessels exude more and more, the eyeball becomes blocked immovably in the orbit, and, although the eye itself may remain perfectly normal, there may be so much pressure exerted upon the optic nerve by this mass of fibrous exudation as to produce amaurosis. Hence we should be careful to separate the subconjunctival fascia just enough to admit of the introduction of the strabismus hook beneath the tendon of the muscle, and no more. Another factor to be considered in the production of an extensive inflammation is the possible laceration which the muscle may be subjected to in passing the strabismus hook beneath it. We should, therefore, be careful, in passing the hook beneath the tendon, to keep it applied closely to the sclera, and thus avoid thrusting its point through the tendon.

Dieffenbach, in his work on "squint and its cure by operation," has given quite a full account of the severe inflammation which occasionally follows the operation, and its evil results. According to him the inflammation usually appears just inside the conjunctival wound, and soon extends in every direction beneath the mucous membrane. Pus is poured out as well as fibrous matter; the whole subconjunctival fascia becomes matted together; and as it is the internal rectus usually which has been divided, the eye is drawn strongly outwards, and remains more or less immovable, according to the amount of exuded matter. Large granulating masses, sometimes amounting to polypoid excrescences, next appear at the conjunctival wound, and in other places the conjunctiva lies in thick folds overlapping the cornea. When some time elapses after the operation before the inflammation sets in, the latter lasts much longer, and is much more obstinate, than where it sets in soon after operation. As the inflammatory action penetrates more deeply and creeps backward, and as the exudation from the vessels increases in amount, the eyeball becomes more prominent. The photophobia and lachrymation are usually intense, and the pain is ascribed more to the head than to the eye itself. It seems that there is more direct danger to the coats of the eye when the inflammation is of a more suppurative character than where the exudation is mainly fibrous. It must not be forgotten how intimate the vascular connection is here between the arteries of the conjunctiva and capsule of Tenon and the anterior ciliary arteries, and through the latter with the long posterior ciliary arteries, and how easily the products of inflammation may pass from the outside to the inside of the eye.

It has been my misfortune to see three cases of severe inflammation following a tenotomy of the internal rectus within the past six months, one of which resulted in total loss of the eye. The first two cases occurred at the Manhattan Eye and Ear Hospital, and I will give a few brief notes of the course of the inflammation.

1. The first case was a young girl of 14 years of age, who had a strabismus convergens concomitans of 3‴ in the left eye. In the left eye, vision was $\frac{2}{3}$, and in the right eye it was normal. The internal rectus of the left eye was divided on March 16th, in the usual manner, and eighteen hours after the operation inflammation set in, which was confined to the space anterior to the equator and was accompanied by profuse suppuration. The eyeball was at no time blocked, and the inflammation subsided under the application of iced water, and nitrate of silver to the granulations.

2. The second case was also a young girl of 11 years of age, who had a strabismus convergens concomitans of 3‴ in the left eye. In the left eye, vision was $\frac{6}{200}$, and in the right eye it was normal. The internal rectus of the left eye was divided on June 10th, and two days later the wound became inflamed, and the inflammation lasted for eight or ten days, running a much more severe course than in the first case, though likewise of a suppurative character. Iced water applications and an alum wash were employed, and as soon as the granulations appeared in the wound, they were cauterized with the solid stick of nitrate of silver. Two weeks after the operation the wound still gaped down to the sclera, but by July 5th it had entirely healed. The movements of the ball are normal, and the squint is cured.

3. The third case was operated upon at the Eye Infirmary in this city, and I afterwards saw the patient at my office. The father had foolishly taken the child on the day of the operation down to Staten Island, without any protection from the cold, and that night inflammation set in. When I saw the child, a week had elapsed since the operation, and the eyeball had been lost by panophthalmitis. It was abducted to the extreme point, perfectly immovable, the cornea entirely opaque and the whole globe a mass of pus. The conjunctival wound was gaping widely, and the suppuration was profuse. The eyelids were very much reddened and swollen, and the child complained of great pain in his head. I saw the child a few times subsequently, and at the last visit the inflammation had subsided, but the eye was soft and still remained in its abducted position. Another danger which may result from an extensive inflammation of the capsule of Tenon is that the inflammatory action may extend up the sheath of the optic nerve to the brain, and there set up a basilar meningitis which may prove fatal.

Treatment.—As regards the treatment of these cases of traumatic inflammation, it is very simple. As soon as any inflammatory action is suspected, apply two or three leeches to the inner canthus of the eye, close to the root of the nose, and as many more to the temple, and foment the parts with warm water so as to increase the hemorrhage after the leeches have dropped off. Apply cloths wet in iced water to the part, and renew them frequently. This, with perfect rest, and perhaps a saline cathartic, will generally suffice to quell the inflammation, though the bleeding may have to be repeated. Dieffenbach reports a case where the inflammation was so violent, that after applying a large number of leeches to the temples, the patient was bled to the amount of 16 ounces from the arm, until he fainted, and this heroic treatment was kept up for two days, the venesection being repeated every three or four hours, till syncope appeared. I think we will scarcely find it necessary to follow Dieffenbach's example in treating any case, no matter how severe.

I cannot forbear mentioning here a case reported by von Graefe,* in which nearly the entire outer half of the sclera was involved in the ulcerative process. The patient was a woman, about 40 years of age, who had been operated upon five months previous to her appearance at his clinique for a secondary divergent squint. The eyeball was in a high degree phthisical, and without any perception of light. Nearly the entire external half of the globe was involved by a fungoid, granulating, dirty gray tumor, resembling a cancroid growth. Between the many small papillary excrescences were dirty furrows and excavations, some of which penetrated into the cavity of the globe. The eyeball was enucleated and examined by Virchow, who reported the following: The mass is opaquely granular, and resembles very strongly a cancroid growth. The dense tissue, which constitutes the growth, is continuous with the sclera, but also contains within itself a homogeneous new formation in which no particular accumulations of cellular structures can be found. The tolerably vascular tissue consisted rather of round cells, with several nuclei, closely pressed together, and resembling pus corpuscles embedded in a basement substance in part homogeneous, in part fibrous in structure. Towards the normal tissue this basement substance became more abundant, denser, and the cells more spindle-shaped and stellate, until the ordinary normal tissue was reached.

3d. We now come to the third or syphilitic form of inflammation of the capsule of Tenon, which to me is the most interesting one of all, perhaps because it is the most rare, and because I have been watching a case for the last three or four months at the Manhattan Hospital, in which the disease has run a somewhat singular course in attacking both eyes of the patient.

We know that syphilitic affections of the submucous cellular tissue, as well as of the subcutaneous, are tertiary, late manifestations occurring several years after contagion. The circumscribed form, or "gummy tumors," as they are called, commence as hard lumps, freely movable beneath the skin, which at first is not altered in appearance. They may not be attended by any inflammatory action, and may occupy a long period in development. Later they become tender, softer, and adherent to the skin; softening commences in the centre, the skin becomes thinned, ulcerates, and a small amount of fluid exudes. Microscopically these tumors consist of loose fibrous tissue, made up of pale, elastic fibres, inclosing in their large interspaces a homogeneous granular substance. In this homogeneous basement substance we meet with round granular cells or corpuscles, the larger of which contain a nucleus. Robin says they are composed of cytoblastions, which are the nuclei of fibro-plastic cells of a finely granular amorphous substance, and of fibres of cellular tissue, elastic fibres, and a few blood-vessels. Their anatomical elements are not peculiar to syphilis, but are found in normal tissues and in non-syphilitic tumors.

Syphilis affects the muscles in two ways, viz.: 1st, The diffuse form, consisting in an abnormal development of connective tissue in the inter-fibrillary spaces; and, 2d, Gummy tumors in the muscular substance. Bouisson says, "it is difficult to determine whether the earliest changes take place in the muscular fibrils or in the intervening cellular tissue, although analogy would lead us to believe that it is the fibro-cellular element connecting the fleshy fibres, or serving as their sheath, which is first involved. But in advanced cases all the anatomical elements appear to be affected, and according to the progress of the morbid action the muscular fibres are either surrounded by a material of new formation or are softened and destroyed, or, again, are transformed into indurated, cartilaginous, or even osseous tissue."

The syphilitic affections of tendons consist either in a thickening of the cellular elements of the tendons, or in the presence of circumscribed masses of deposit. They terminate either in secondary degeneration and softening, or in ossification. Syphilitic tumors of tendons appear to depend upon circumscribed hypertrophy of the normal fibrous tissue, together with an effusion of serum and plastic material. They are sometimes near the surface, sometimes deeper, the former being the more common. They are the seat of more or less pain, and have a tendency to spread rather rapidly.

I have been thus minute in describing the syphilitic affections of the muscles and tendons, because in the case which I am about to mention the inflammation involved all these tissues.

S. L., a woman, 32 years of age, married, and a native of the United States, was admitted as an in-patient into the Manhattan Eye and Ear Hospital, October 7th, 1870.

She stated that she had never had any trouble with her eyes till the 3d of July previous, when she woke early with a severe pain in the right eye, and found it very much congested. She had not been exposed to cold or wet, and had gone to bed feeling perfectly well. The redness and pain continued, and she used solutions of nitrate of silver and sulphate of zinc for five weeks. The vision grew rapidly worse, and at one time descended to merely quantitative perception of light. At the end of this time the pain grew less and the vision improved, so that by the 10th of August she could find her way round the house, and could even read coarse print. The eye remained in this condition till towards the last of September, when the pain returned with great violence and vision again grew worse, and she came to New York, and by Dr. Agnew's advice entered the hospital. On the date of admission, October 6th, the right eye presented the following appearance: Great congestion and chemosis of the ocular conjunctiva, greatest over the insertion of the tendon of the external rectus muscle. Here was a tumor about the size of a Lima bean, 6‴ long by 4‴ wide, the long axis lying in the direction of the external rectus muscle, and moulded off on every side into the surrounding tissue. It projected about 3‴ above the surface of the eyeball, and the vessels running over it were very large and tortuous. The tumor had a yellow appearance and felt hard. It was not movable, but the overlying conjunctiva was. There was an iritis

* Archiv für Ophthalmologie, Vol. III. 2.

serosa; the anterior chamber was abnormally deep; and at its temporal side, connected with the pillars of the iris and also with the tumor outside, was a small growth, about the size of a pea, similar in appearance to the one outside. There was some slight corneal opacity, and the adhesions between the iris and the lens were so firm and extensive that the pupil could not be dilated, and no view of the fundus could be obtained. The left eye was perfectly normal. She was immediately placed under the influence of mercury, by the inunction method, and when symptoms of ptyalism appeared, the iodide of potassium was given in strong solution, so that with every drop of the solution she received a grain of the potash, commencing with five grains thrice daily, and gradually increasing the dose up to toleration, which in her case was about 40 grains three times daily. The tumor rapidly diminished in size under this treatment. Atropine was instilled daily, and iron administered with the potash. On November 25th she went home, with the inflammation all gone, and vision perfect. She had no trouble of any kind until the last of March, 1871, when the inflammation and pain returned in the same spot, and on the 2d of April she again came into the hospital. Vision was still normal, but the inflammation and pain were very severe, and this time followed the course of the external rectus muscle, extending back beyond the equator. There was at first no photophobia. The pain was always worse at night, and being more thoroughly questioned as to her past history, she admitted having had most of the secondary symptoms of syphilis, and in particular a cutaneous eruption, from which she recovered by the use of mercury and potash. The vision soon grew rapidly worse, the vitreous became opaque, so that no view of the fundus could be obtained, and at the end of the third week after her entrance, she was discharged, the inflammation having all subsided, but the vision having sunk so low that she could only count fingers at one foot from the eye, and could distinguish the prime colors.

She remained well in every respect till August 7th, 1871, when she was seized with a severe throbbing pain in the left temple and angle of the *left eye*, which soon passed to the eye itself, accompanied by congestion and chemosis of the conjunctiva and great photophobia. She came into the hospital on August 18th, and an examination revealed the following state of affairs: Intense congestion of all the superficial and deep conjunctival vessels, both of the globe and lids, and considerable chemosis of the ocular conjunctiva. At the line of scleral implantation of the tendon of the external rectus muscle was a yellowish-red tumor, about the size of a pea, bulging forwards towards the cornea, and pushing upward the conjunctiva, evidently attached to the tendon of the muscle or to the capsule of Tenon in its neighborhood, and surrounded by a leash of large vessels. It was immovable, but the inflammatory action extended for some distance along the course of the muscle. The tumor was elevated about 2‴ above the surface of the globe, and was of a soft nature. The iris was not involved. There was a circumscribed opacity of the cornea at the inferior part, parenchymatous in character and non-vascular. There was a general haziness of the vitreous, but no sign of any growth inside which might be connected with the external tumor. The tension was a little below the normal, and the retinal vessels somewhat engorged. The same plan of treatment was followed as before, and with a very satisfactory result. The tumor rapidly diminished, the pain slowly grew better, the ciliary congestion disappeared, and even the circumscribed corneal opacity, though never at any time vascularized, seemed to grow smaller. For three or four days the vitreous was so cloudy that no distinct view of the fundus could be obtained; but after this cleared up the fundus was seen to be intact, and remained so for about a week. The retinal veins were then noticed to be considerably engorged, and in the region of the macula, and between it and the optic papilla, there was seen a ruffled, uneven appearance in the choroid, as if the hexagonal pigment cells were undergoing atrophy. No other changes than this have been noticed, and the patient was discharged last week, with directions to report at intervals.

I have seen but one other case of this kind, and this was in Prof. Arlt's clinique at Vienna. The disease was confined to one eye, but affected the external rectus muscle, and as the patient had had the primary lesion of syphilis, followed by many of the secondary manifestations, the case was decided to be a gummy tumor of the muscle, and the patient recovered under anti-syphilitic treatment. I have examined somewhat carefully the literature of the subject, and Dr. Sturgis of this city has very kindly done the same thing, but neither of us has been able to find anything bearing particularly upon this affection. Lancereaux and others mention syphilitic affections of the cranial nerves accompanied by paralysis of the muscles supplied by them; but in this case there was no paralysis, which proved that the nerve was not affected, and that the disease was confined to the muscle itself. There was some limitation of motion in the right eye, which could be explained by the fact that the fibrous capsule of the globe was involved.

The case is, to me, satisfactorily proved to have been of syphilitic origin for the following reasons:

1st. The patient had suffered from various secondary symptoms, such as an eruption upon the skin, alopecia, and mucous patches in the throat.

2d. The symmetrical manifestation of the disease, the tumor appearing at the same spot in the external recti muscles of both eyes.

3d. The disappearance of the disease under mercurial treatment.

In the three cases of traumatic inflammation which I have mentioned, we have seen that the process tended to spread in every direction, and in one of them it involved the whole eyeball. Furthermore, in the little that has been written upon the subject, it is distinctly stated that a traumatic inflammation of the capsule of Tenon generally spreads very rapidly in all directions. Wishing to satisfy myself of the truth of this statement, and desirous of determining whether the seat of the injury exerts any influence upon the spread of the inflammation, I have, during the past summer, been carrying on a series of experiments upon rabbits and cats, and, I think, with satisfactory results. For this purpose I was obliged to keep the animals confined, and this, with the unavoidable dirt and consequent bad atmosphere, may have had something to do with the rapidity of development of the inflammatory process, though the cages in which the animals were confined were large, and were kept as clean as possible. I employed various means for exciting the inflammation, such as simple tenotomy of the various muscles, sometimes accompanied by loosening of the fibrous capsule from the sclera, sometimes not; pus introduced beneath the conjunctiva through an ordinary incised wound; and the introduction of a seton through the tendon of a muscle and in its sheath. The animals were all perfectly healthy as far as I could determine, and suffered but little general disturbance from the local inflammation. I could detect no difference in the course or rapidity of the inflammation in the two species of animals, and the

results were about the same in both. I found when simple tenotomy of the muscle was practised, that the inflammation was more or less circumscribed, and only tended to become diffuse when the fibrous capsule was dissected up from the sclera to a considerable extent in the course of the muscle, which certainly proves how necessary it is to be careful in operating for squint, and in no case to expose the subconjunctival fascia any more than we can help. In no case was an eye lost from inflammation following a tenotomy of a muscle, though quite a number were limited in their excursive movements by the blocking of the globe by the products of inflammation. It did not seem to make any great difference which muscle was divided, though perhaps the inflammatory action appeared sooner after a tenotomy of the internal rectus than when the other muscles were cut. The inflammation did not show any particular tendency to follow the course of the divided muscle or to creep up its sheath, but seemed to spread uniformly in all directions, nor was its course altered by a more or less extensive loosening of the subconjunctival fascia, except that it always spread more rapidly under these circumstances.

When pus was used, the results were quite different. The pus was obtained from an artificial sore produced upon any part of the animal, usually on the back, and introduced into the meshes of the capsule of Tenon through an ordinary conjunctival incision, generally over the insertion of one of the muscles. Here the inflammatory action usually set in within three or four hours, extended very rapidly in every direction, and generally involved the whole capsule. The signs of inflammation were very marked, and the eyelids became very œdematous, but the conjunctiva was not often affected. Three eyes were lost by panophthalmitis, and though the globe was involved in some few other cases, yet I could not decide how far the disease had extended, as the media were cloudy and no view could be obtained of the fundus. In most of the cases the inflammation subsided gradually, leaving the eyeball more or less blocked in its movements, of course to a greater extent on the side of the divided muscle. The three eyes lost by suppurative inflammation were all examined microscopically, and showed very nearly the same results, the inflammation having followed a similar course in all. The enucleation was performed with great difficulty, owing to the dense adhesions between the globe and the orbital tissue. The eyes were divided in the vertical meridian, and on being laid open were found to be a mass of pus. In two there was no anterior chamber, as the cornea had ulcerated and the iris and lens lay close up against the membrane of Descemet. The lens was opaque in all three, as was also the vitreous humor. The retina was partially detached and shrunken. After the eyes had been hardened in Müller's fluid and alcohol, sections were cut and subjected to careful microscopic examination. The cornea was found to be a mass of granular matter and pus cells, with here and there remains of the external layer of epithelial cells. The choroid and retina were likewise filled with pus cells, and bore but little resemblance to their normal structure. The sclera was the least affected, though even here pus cells were very numerous between the fibrillæ. In fact, the eyes presented the usual results of a panophthalmitis.

In four cases I introduced a seton through the tendon of the muscle, twice through the external rectus, and twice through the internal rectus, cut it off short, and left it in beneath the conjunctiva. The inflammatory action set in within six hours, and seemed to run a medium course between that which followed a simple tenotomy of the muscle and that which supervened upon the introduction of pus beneath the conjunctiva. The inflammation generally extended round the entire globe, but was not very violent, and the purulent secretion was surprisingly slight.

No. 7 West Forty-sixth street.

A FATTY TUMOR OCCUPYING THE SCROTUM.

Reported by GURDON BUCK, M.D.,
surgeon to the late new york hospital, and st. luke's hospital.

A. D., æt. 49, resident of Scranton, Penn., a railroad way-master, of good constitution and regular habits, was admitted into St. Luke's Hospital, July 24, 1871, with a tumor occupying the left side of the scrotum, and resembling in many respects a hydrocele. In shape and volume it was equivalent to a large-sized pear, with its apex upward. It was somewhat flattened laterally, and at its lower part, anteriorly, a prominence stood out from the surface, which patient identifies from his sensations as the testicle. Its upper extremity reached high up in the groin, and from it the cord in a normal condition was traced upward into the external abdominal ring. It was of uniform consistence, elastic, and apparently fluctuating, though not as tense as a hydrocele of the same size usually is. The following is the patient's history. About four years ago he first noticed a lump at the upper part of the scrotum, where the cord joins it. It increased very gradually in size, unattended with pain or inconvenience, till about six months ago, since which time it has grown rapidly to its present volume. The scrotum covering it is everywhere supple and unadherent. Regarding the tumor as a hydrocele, a puncture was made, July 25, on the anterior surface, with an ordinary trocar and canula. A spurt of hydrocele fluid followed the withdrawal of the trocar, to the amount of half an ounce, and then ceased. The inner end of the canula had escaped from the tumor, and was lodged in the scrotal tissue, exterior to the tumor. A second puncture was made on the outer surface, a little below its middle, and the canula buried half its length in the tumor, but no fluid escaped. A probe passed through the canula continued farther on with very slight resistance, but could not be moved laterally. A third puncture was then made, higher up on the posterior aspect, and again no fluid escaped through the canula. The probe was now made to traverse the tumor, encountering only the slightest resistance, till it pushed before it the scrotum on the opposite side. The same resistance to lateral motion of the probe was observed as in the second puncture. On applying the usual test, no translucency was found at any point. Further proceedings were postponed to the next day, when a consultation was held, and it was decided to expose the tumor by an incision and ascertain its nature. This was done with the aid of etherization, by a free incision upon the anterior surface on a line with the long axis of the tumor. The successive layers of tissue were cautiously divided till the surface of the tumor itself was laid bare, and then, to the surprise of all present, a well-characterized fatty mass was recognized. The delicate capsule which invested it was readily detached with the fingers and scalpel-handle, and the tumor enucleated entire. Its upper extremity tapered off into two slender prolongations, which extended upward more than an inch along the cord. The vas deferens, separated from the other constituents of the cord, was encountered as it passed down over the outer surface of the tumor to join the testis below. The prominence upon the anterior surface of the tumor already noticed proved to be the testis. It was

found of normal size and condition, with a small quantity of hydrocele fluid contained in the cavity of the tunica vaginalis. Two or three small scrotal vessels required to be ligated. After replacing the testis, the edges of the wound were brought together and secured with fine thread sutures. The tumor, lying upon a level surface, measured 5¼ by 5½ inches in its diameters and 2¼ inches thick, and weighed fourteen ounces.

It presented the color and other physical characters of a fatty tumor, had a smooth, even surface, and was of uniform consistence throughout.

The subsequent progress of the case does not require any detailed description. Its unexpected fatal termination from pyæmia can only be regarded as incidental to the operation. It will suffice to state that forty-eight hours after the operation excessive inflammatory tumefaction of the scrotum, of an erysipelatous nature, had supervened, and was followed by sloughing of the subcutaneous scrotal tissue, which was, however, limited in extent by seasonable free incisions of the indurated and infiltrated parts. On the ninth day the sloughs had all separated, and healthy suppuration was established, the swelling was steadily abating, and the parts regaining their normal size. Everything progressed satisfactorily till the twenty-second day, when a smart rigor, followed by profuse sweating, supervened, and was succeeded by a repetition of rigors at irregular intervals, sometimes two occurring within a few hours of each other. From this time patient progressively failed in strength, the surface assumed a sallow hue, and death took place on the 26th August, the ninth day after the first rigor.

Remarks.—A fatty tumor occupying the scrotum is of very rare occurrence. In the present case it had evidently originated in the loose connective tissue entering into the composition of the cord, and at the point where the cord enters the scrotum. In its development it detached the vas deferens from the other constituents of the cord, and as in its progressive growth it descended into the scrotum, the vas deferens applied itself to the outer and posterior surface of the tumor, while the testis, with its enveloping tunica vaginalis, was displaced forwards, and formed a bulging prominence anteriorly and inferiorly on the surface of the tumor, as already noticed. The author has encountered one instance of a male patient with a pedunculated fatty tumor, of the size of a hen's egg, developed over the region of the inguinal canal, from which it hung pendulous. In reference to diagnosis it may be said that a fatty tumor is perhaps the only tumor that would assume the even shape and present the elastic pseudo-fluctuating sensation so closely resembling hydrocele as in the present case. A critical retrospect recognizes a less degree of rotundity and plumpness than belongs to a hydrocele tumor of the same volume. The first appearance of the tumor high up in the scrotum is also noteworthy, as distinguishing it from hydrocele, in which the fluid necessarily gravitates to the bottom from the commencement of its formation. The abnormal position of the testis and the absence of translucency are points which, taken in connection with the other characters, would be conclusive as against hydrocele.

No. 46 West Twenty-ninth street.

Alcohol and Eyesight.—M. Galezowski recently, at a sitting of the Paris Academy of Medicine, pointed out how many cases he had noticed among the poorer classes of loss of vision from the chronic use of alcohol. The form of loss of sight is that of amblyopia.

AN EXTEMPORIZED CANULA FOR TRACHEOTOMY.

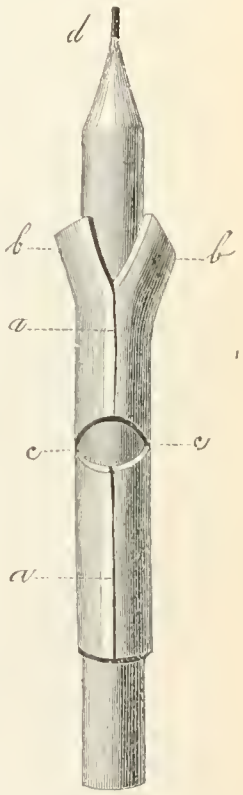
By BENJAMIN HOWARD, A.M., M.D.,

OF NEW YORK,

LATE PROFESSOR OF CLINICAL AND OPERATIVE SURGERY, ETC.

The demand for tracheotomy is usually sudden, and the advantage of it in any case is quickly and fatally forfeited by delay. Fatal delay occurs for the want of a canula more often than from any other cause, several days being necessary in some localities to procure one. Temporary substitutes for a canula have therefore been proposed. A goose quill has been commended, and with this simple appliance, in the form of a tooth-pick, Prof. Henry Draper, of this city, when on the House Staff of Bellevue Hospital, prolonged the life of a patient until a silver canula could be found and introduced. The curved end of a catheter has also been recommended, and this, like a quill, has the advantage of being usually obtainable. Both quill and canula, however, have too small a bore; the goose-quill, besides, can receive no curve, and therefore the end of it which is introduced abuts against the posterior wall of the trachea, and is likely thus to be closed.

Fig. 1.



Should the curved part of a catheter be tried, the end of it must first be cut off, and any attempt to do that is pretty sure to spoil it.

Whether the quill or the canula be tried, neither the one nor the other can be maintained in the wound as required, and with rare exceptions they are both a delusion.

For an instrument every way superior to the foregoing, the author is indebted to an emergency encountered while on a shooting excursion in 1867, which called for immediate tracheotomy. A canula *must* be had. The tools present consisted of a pen-knife; the materials—ammunition. In a short time a canula was ready,—it was made out of a minié bullet. Such a canula may be made thus: Take a piece of lead, whether in the form of sheet, pipe, or bullet, and, if necessary, hammer it out as thin as it can be used without breaking. Of this cut a piece the shape of a parallelogram about 2½x1¼ inches, or enough larger to allow a margin; roll it around a trimmed stick—ramrod or pencil—thus making a tube as in fig. 1, and bevel both edges so that by trimming and dressing the seam may be smooth and firm. Cut the upper end so as to form four slips of equal size (*bb*), and at about the middle of the tube cut out a transverse elliptical section from

The sheet of lead rolled around a Pencil (*d d*).

(*a a*) Seam down centre bevelled and dressed smooth.

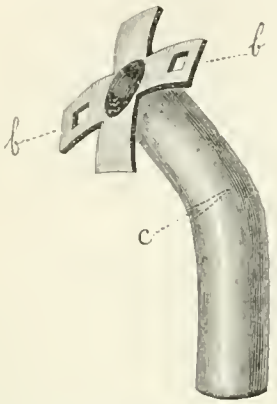
(*b b*) Slips cut at upper end of tube, turned down at *b b* (Fig. 2), two of them being there pierced with eyelet holes.

(*c c*) Section cut out transversely from two-thirds the circumference of the tube, which at *c* (Fig. 2) is bent upon itself.

about two-thirds of its circumference (fig. 1, *cc*). Withdraw the pencil and bend the tube upon itself. Turn down slips, and in two of them cut eyelet holes through which a tape or string may be passed around the neck, to retain the canula in its position in the wound.

Advantages of this expedient:—Lead, the material used, is particularly innocuous; and either in sheet,

FIG. 2.



LEADEN CANULA.

(*b, b*) Flange and eyelet holes by which it is retained in position.
(*c*) Appearance of joint when tube is bent upon itself.

pipe, or bullet form, is found almost everywhere within and beyond the bounds of civilization.

The tools needed are simply a smooth stone and a penknife; with these alone, a canula of sufficiently finished construction may be readily prepared.

By a little skill this canula may be modified both in shape and size to suit any peculiar anatomical conditions natural or pathological; in this respect, therefore, the leaden substitute presents an actual advantage which does not belong even to the canula of silver.

A CASE OF FACIAL NEURALGIA TREATED BY EXTIRPATION OF THE SUPERIOR MAXILLARY NERVE.

By B. A. WATSON, M.D.,

SURGEON TO JERSEY CITY CHARITY HOSPITAL.

T. De Y., æt. fifty-two years, married, of temperate habits, a rectifier by occupation for the last twenty years; had previously worked at shoemaking. During the early part of his life, while engaged in shoemaking, he suffered severely from indigestion and hepatic derangement, which were usually benefited by laxative doses of the massa de hydrargyro. He has continued to suffer more or less from indigestion, but not nearly so much since he changed his occupation. The neuralgic disease first made its appearance in the spring of 1868. At this time he observed, when he washed his face in cold water, that he had flashes of pain about the region of the right cheek and orbit. The pains now were of short duration, lasting only a few seconds. These pains gradually increased, and he soon began to suffer severely: was unable to eat, drink, converse, or laugh without having a most violent paroxysm, causing him to shriek with anguish. These paroxysms were more severe during the day than the night. After suffering thus acutely for about six months, he found himself partially relieved. (The extraction of teeth, and medicines used, had failed to give any relief.) This temporary relief continued until about four weeks previous to the performance of the operation, when it returned suddenly. The exacerbations assumed a more violent form, marked by excruciating and nearly continuous agony during the day. His sufferings were now much more severe than on any previous occasion. The pain was not now confined to the cheek and orbit, but the lip and nose were involved. The slightest touch upon the surface of the face, a current of air, or a mouthful of water acting on the palate, would throw the patient into a violent paroxysm of agony. The condition of the patient was such that he could not attend to any business; his general health was greatly impaired; he frequently spoke of his life as a burden; feared the loss of his reason. He had tried medicines until he had lost all confidence in their power to relieve his sufferings, and begged for an immediate operation.

I determined to perform Dr. Carnochan's operation, as modified by Prof. Jas. R. Wood. Dr. Carnochan's cases are reported in *American Journal of Medical Sciences*, vol. xxxv.; Prof. Wood's in *New York Medical Journal*, June, 1871.

I operated June 11th, 1871, with the assistance of Drs. Varick, Mulcahy, Wolfe, McGill, Gardiner, Craig, and Gray. The patient was placed in a large armchair before an open window, with his head resting upon the shoulder of an assistant, when the ether was administered, and "a semi-lunar incision was made in the right cheek, commencing at the inner, and terminating at the outer, angle of the eye. A vertical incision was then made from the centre of the first, extending down to the vermilion border of the lip, but not sufficiently deep to enter the buccal cavity. The flesh was then dissected up, and held in that position by an assistant. The branches of the superior maxillary nerve were dissected out from the soft parts, and an opening made through the anterior wall of the antrum, by means of a trephine, three-fourths of an inch in diameter." I now, at the suggestion of my friend Dr. Varick, introduced into the infra-orbital foramen a small probe, which I passed backward through the canal; and then, placing the concave surface of a gouge over the probe, and carrying the gouge backward through the infra-orbital plate, the nerve was easily dislodged from its bed in the groove as far back as the posterior wall of the antrum. A smaller trephine was now used for perforating the posterior wall, thus opening into the spheno-maxillary fossa, "and exposing the nerve at its exit from the foramen rotundum, and also Meckel's ganglion."

The nerve was then gently drawn forward and divided behind the ganglion, and a portion of nerve two and a half inches in length was removed. The hemorrhage during the operation was very slight. As soon as the oozing had stopped, the semi-lunar and the upper portion of the vertical incision were closed by hare-lip pins, the lower portion of the vertical incision being left open for the purpose of drainage.

Two hours after the operation the pulse was eighty-four per minute; skin natural; some nausea, attributable to the anæsthetic; all sensation in the parts supplied by the superior maxillary nerve was completely destroyed.

June 12.—Patient has not slept during the night. Pulse eighty-four; skin natural; tongue dry and slightly furred; complains of itching of the alæ nasi, which is not relieved by friction. Ordered potass. bromidi and chloral hydrat. gr. xviii. of each, to be taken at bedtime, and repeated every hour until sleep is produced.

June 13.—Took two doses of the medicine in the early part of the evening, and slept until three o'clock

this morning; then took another dose, and slept until six o'clock. Fee's better this morning; has eaten a good breakfast, which he enjoyed; pulse 84; wound is looking well. Syringed it out with a weak solution of carbolic acid in water. There is no pain, but the itching continues.

June 14.—Has taken one dose of medicine during the night; slept well; wound is healing kindly; pulse 84; complains of some neuralgic pains in the left cheek. Removed the pins and applied adhesive plaster.

June 15.—Pains in left cheek continue; pulse 90; bowels constipated. Ordered cathartic dose of citrate of magnesia.

June 16.—Feels better to-day. Bowels have acted. Pulse 84; wound doing well. Ordered tonic doses of sulphate of quinine.

June 17.—Less swelling about the face than before. Pulse 84.

June 19.—Patient out walking to-day; remained out two hours.

June 21.—Goes out walking daily, and is improving rapidly. Has very little pain of any sort. Pulse 68. Very slight discharge of pus from the wound.

June 25.—Intends to return to business to-morrow. Wound discharges only a few drops of pus during the day.

He resumed his business the next day without pain or inconvenience.

I desire to add, in connection with the above notes, that cold-water dressings were applied to the wound after it was closed, and continued for three days. The wound was carefully syringed out every day for about two weeks. During the first four days there was a very slight oozing of bloody serum, and after this followed a slight flow of pus. The patient remained in bed only *one day*. The wound was perfectly healed at the end of six weeks. The general health has continued to improve from the time of the operation to the present date.

The neuralgia which showed itself on the left side of the face has disappeared; it was of short duration and at no time severe, although the patient—a nervous subject—was seriously annoyed by its presence, in anticipation of future sufferings.

Progress of Medical Science.

Solution of Santonine.—Dr. John Harley (*Practitioner*) gives the following formula for a solution of this ordinarily insoluble remedy:—

℞. Santonini, in pulvere.....	gr. xij.
Sodæ bicarbonatis.....	gr. xx.
Aquæ destillatæ.....	f ʒ iij.

The Antiseptic Ligature in Varicocele.—Dr. Emile Steiger, Prairie du Chien, Wis. (*Chicago Med. Examiner*), recently performed the operation for varicocele in the following manner: 1st. Incision on the left side of the scrotum, about one inch long, so as to lay open the bundle formed by the fascia of the cremaster. 2d. Fixing of the bundle outside of the external wound, with help of a sound passed under it, across and over the margins of the scrotal incision. 3d. Dissection of the cord, and application of two antiseptic ligatures around the varicose vein, separated nearly one inch, and cut close to the knot. 4th. Excision of that portion of the vein included between the two ligatures. 5th. Careful cleansing of all parts with a solution of carbolic acid j, glycerine iv, aq. xij, by sponge and syringe. 6th. Closing of external wound with silk sutures, which had been prepared by being soaked for six hours in carbolated oil, and covering the scrotum with linen, also soaked in carbolated oil. Two weeks after the operation the patient was well and attending to business. He owes to the suggestion of Dr. D. Mason his preparation of antiseptic ligatures, consisting of violin strings, kept in a bottle of carbolated oil for at least forty-eight hours.

Ventilation.—Dr. Henry Howard, Supt. of the Provincial Lunatic Asylum at St. John's (*Canada Med. Journal*), from repeated experiments on "ventilation," comes to the following conclusions: 1st. That the proper height at which to expel foul air is between seven and ten feet from the floor. 2d. That external air, when admitted above the head inwards and upwards, causes no sensible draught upon the person. 3d. That this air, when colder than the internal air, falls down towards the floor, and while passing through the heated and foul air, though it becomes in some degree heated, is impregnated but very slightly with impure pure gases, it, after descending, floating up the impure gases; in fact, there are two distinct currents, the foul gases and heated air *ascending*, the cold pure air *descending*. In answer to the question, "How can pure air pass through impure gas and not become impregnated with it?" he states that air is a mechanical mixture and not a chemical compound. He wishes it to be particularly understood that heated air is not foul air, but that heated air and heated carbonic acid and sulphuretted hydrogen gases are lighter than pure cold air, and consequently are floated up together,—the heated pure air, however, ascending much higher than the heated impure gases.

Iodide of Calcium.—Dr. Goodman (*Canada Lancet*), at a recent meeting of the Medical Society for Mutual Improvement, spoke in favor of the use of iodide of calcium as a remarkably mild and efficient alterative; it appeared to him to be more easily assimilated in disordered states of the stomach than any other iodide; he had used it lately with marked effect in diseases of the stomach and bowels in the strumous diathesis.

Cynanche Trachealis and Crural Phlebitis.—Dr. L. B. Cotes, Batavia, N. Y. (*Buffalo Med. and Surg. Journal*), writes that comparatively little or nothing has been written of the use of veratrum viride in crural phlebitis. His experience of sixteen years' duration with it convinces him fully of the power of this remedy to cut short this poisonous malady, when early and persistently used with appropriate adjuvants. He has had some severe cases, some of which would have been followed with permanent injury to the limb without it. So sanguine is he of its beneficial influence in controlling both crural phlebitis and cynanche trachealis, that he does not hesitate to invite the personal experience of medical brethren to a thorough trial, not doubting but their reports will be quite satisfactory, showing a less percentage of fatal and badly-cured cases.

Ol. Terebintu. in Chronic Ulcerations.—J. Fayrer, M.D., C.S.I. (*Med. Times and Gazette*), alludes to the benefit that may be derived from the internal administration of small doses—20 to 30 drops—of ol. terebinth, given at intervals of four or six hours for some days, in the treatment of chronic ulcerations of an indolent character. He first saw it used by the late Dr. Gilbert King, Inspector-General of Hospitals, R. N., at Bermuda, so long ago as 1844. The effect on the capillary circulation is most marked, and he has frequently seen it succeed in promoting healthy granulation in most obstinate cases of chronic ulceration. To prevent strangury, it may be advantageously combined with nitric ether, and occasionally with tinct. opii.

Subcutaneous Division of the Neck of the Femur.—Dr. William Adams, who claims to have made in December, 1869, the first operation on record for subcutaneous division of the neck of the femur for the relief of bony anchylosis, has recently published a paper on the selection of cases for this operation, and mentions the fact (and instances) of four operations of this character having been successfully performed since the above date. Referring to thirty-four specimens of anchylosis of the coxo-femoral articulation to be found in the London Museums, he thinks that this operation would have been admissible in twenty-one of them. He says, "From the facts shown by the specimens above referred to, with regard to the neck of the thigh-bone, it becomes of the greatest practical importance to be able to diagnosticate: 1. The class of cases of bony anchylosis of the hip-joint in which the neck of the thigh-bone remains of its normal length; 2. Those in which the neck of the bone is shortened, but remains of sufficient length to admit of the operation being performed; and 3. Those in which the neck has been so far destroyed as to prevent the operation being performed. There can be no doubt that, in a large proportion of cases, this diagnosis can be made with absolute certainty, and must be based upon the nature of the disease, or morbid conditions producing the anchylosis, viz., whether rheumatic, pyæmic, or traumatic inflammation; or whether it is the result of strumous disease of the joint. Now with reference to these points, the following are the conclusions at which I have arrived:

"1. In rheumatic anchylosis, no destruction of bone ever exists, and the head and neck of the thigh-bone, therefore, always remain of their natural size.

"2. In anchylosis after pyæmic inflammation, more especially in its sub-acute form, from which the patient frequently recovers, destruction of bone rarely if ever exists, the soft structure only being destroyed.

"3. In anchylosis after traumatic inflammation in healthy adults, such as that which occurs after wounds of the joints, and gun-shot wounds in the neighborhood of the joints, when the joint itself has escaped injury; and in some cases of anchylosis, chiefly from long retained position, as a general rule, no destruction of bone occurs, even after acute suppurative inflammation, the soft tissues only being involved.

"4. In anchylosis after strumous disease of the joint, when arrested in the early stage, without the occurrence of suppuration, or, at least, of abscess bursting externally, there is generally only a superficial caries of the head of the bone; and the destruction being thus limited in extent, the neck of the thigh-bone remains of its natural length, although practically somewhat shortened by being depressed, or sunk into the acetabulum. In this class of cases, however, the operation can generally be performed.

"5. In anchylosis following the more severe forms of strumous disease, in which there has been evidence of caries or necrosis of bone, with abscess bursting externally, and remaining open a considerable time, generally giving exit to small particles of bone, destruction of the head and neck of the thigh-bone to a greater or less extent may be diagnosticated, and in all such cases the operation cannot be performed.

"Thus it will be seen that out of the five classes of bony anchylosis above described, in three classes the head and neck of the thigh-bone remain of their full, natural proportions. In the fourth class, although some difficulty may occasionally be met with, the operation can generally be performed; and it is only in the fifth class of cases that the operation is decidedly negatived."

Ergot of Rye in the Treatment of Mental Diseases.—The use of ergot has been for several years quite common with such of our physicians as have had to deal much with diseases of the spinal cord, but, so far as we are aware, its effects upon mental diseases have had but little trial. In *The Practitioner* for June, appears an article by Dr. J. Crichton Browne, the Medical Director of an English Asylum, in which he says that (1st) in recurrent mania, chronic mania with lucid intervals, and (2d) epileptic mania, he has found it almost uniformly efficacious in reducing excitement, in shortening attacks, in widening the interval between them, occasionally in altogether preventing their recurrence, and in averting that perilous exhaustion by which excitement is so often succeeded.

The fact that these mental conditions depend upon an over-distention of the cerebral vessels, and the ability of ergot to produce contraction of the muscular coats of the vessels, and thus exert a controlling power over their contents, having been, he thinks, sufficiently well established, it follows that the benefit to be derived from the use of the remedy in these cases is limited only by the degree to which pathological changes have taken place. Maniacal attacks of every kind, frequently repeated, result gradually in organic degeneration, and hence become inaccessible to those influences which controlled them in their earlier stages. "It is a striking circumstance," he says, "that ergot becomes less and less energetic as mania merges into dementia, and as epilepsy asserts itself in physical degeneration. In addition to care that the specimen used has not deteriorated (as it is apt) by age or exposure, a judicious regulation of the doses is imperative, but they are at any time large as compared with our former ideas concerning this remedy, ʒ i. to ʒ ii. of tincture; ʒ ss. to ʒ i. of the fluid extract, and gr. v. to gr. x. of ergotine, and even much larger doses, may be administered, however, without apprehension, during the time necessary to secure its beneficial effects."

Case of Intussusception.—Dr. James H. Thompson, Milwaukee, Wisconsin (*N. Y. Med. Journal*), publishes a fatal case of intussusception occurring in a laborer, American, aged twenty-five years. On making the *post-mortem* four hours after death, in company with Dr. E. B. Wolcott, Surgeon-General of Wisconsin, one quart of bloody serum escaped; the middle portion of the bowel was intensely congested and partly gangrenous; about the central portion of the jejunum was found a pouch, or *cul-de-sac*, about three inches in length, as large as and the shape of a medium-sized pear, by its small extremity communicating with the bowel. The large and originally free extremity was firmly bound to the mesentery by ligamentous bands—the result, probably, of his attack the previous summer. Through the aperture thus formed between the pouch and the mesentery had passed a duplication of the intestine, in both directions, to such an extent as to cut off entirely even the passage of air through the gut. That portion of the jejunum had become so firmly twisted and strangulated, that it was found impossible to relieve it until a portion of the intestines had been removed, and then only after a manipulation of several minutes. The contents above the constriction were fluid and feculent; below, the gut was empty. The stomach, liver, and other organs, so far as examined, gave no indication of disease.

Placental Extraction and Placental Expression.—Dr. Theophilus Parvin, of Indianapolis, Ind. (*Transactions Indiana Med. Soc.*), publishes an important paper with the above title, in which he has sought to epitomize the management of the placenta—*placental*

extraction, the placenta to be drawn out in abortion—*placental expression*, the placenta to be expressed, pressed out in labor.

In conclusion, it seems to him that the practice of *placental expression* rests upon a firm basis, both of reason and experience, and is worthy of general adoption by the profession. In the first ten years of his professional life he met with six cases of *post-partum* hemorrhage; but since pursuing essentially the practice advised by Crédé, he has not had a single case of this accident; nor has he had a single case in which the placenta was not delivered within, at the most, ten minutes after the birth of the child. And he would earnestly request physicians who have not adopted placental expression as the rule in obstetrics, at least to give it a fair trial. Nor let any hesitate on the ground that the third stage of labor is, like each that precedes, a physiological process, and therefore in no wise to be interfered with. Probably one of the great perils of modern medicine is too much nature-worship, too little recognition of the power of enlightened art.

The Taste of Cod-Liver Oil.—Dr. Aubrey Wicks, in a letter to the *Lancet*, says that the fishy taste of cod-liver oil may be modified by placing a few grains of chloride of sodium on the tongue before taking a dose. With this simple adjunct, patients who before rejected the oil will take it with apparent relish, describing the taste as that of herring or sardine. A piece of bread may be eaten afterwards.

The Endoscope in Granular Urethritis in the Male.—Dr. Robert Newman, of New York (*Am. Practitioner*), reports five cases of granular urethritis in the male successfully treated with the aid of the endoscope.

The instrument which he uses is that known as Desormeaux's, with the lamp invented by Dr. Cruise, of Dublin. Repeated use of this endoscope has led him to make certain subjoined modifications:—*First.* The graduation of the tubes in spaces of an eighth of an inch, which allows of more accurate observation at the time, and saves trouble to the operator and pain to the patient in searching for the diseased parts in subsequent examinations. *Second.* A similar scale for the wires, whereby the surgeon is enabled to tell the exact moment when the mucous membrane is reached. *Third.* A straight tube for examining the bladder of the female, its far end closed with a glass fenestrum, which prevents the entrance of water into the tube. *Fourth.* A curved tube, closed, provided with a glass fenestrum at the curve, for the bladder in the male. The corresponding instrument in Desormeaux's set has, as is known, a sharp angle or corner, which oftentimes gives considerable pain to the patient when being introduced into the urethra. *Fifth.* Several holders, with sponges attached, to cleanse the parts through the tubes. *Sixth.* Several small silver cylinders, which fit into a handle; these, when tipped with nitrate of silver previously melted, are used instead of the solid stick of caustic. *Seventh.* Several small glass brushes, with which the solutions used are applied.

Dr. Newman states that since writing the above he has succeeded in constructing an apparatus which enables him to substitute the light of ordinary gas for the unsatisfactory and unwieldy Cruise lamp. It can be attached very readily to an ordinary gas-burner, is portable, and furnishes a very elegant light.

He has also had made several short glass tubes, of different sizes and forms, with an opening either in the side or end. These are designed particularly for the exploration of the female urethra. The light is reflected by the forehead mirror, such as is used in laryngoscopy. These tubes afford a most convenient means of applying atomized fluids to the parts. The best atomizers with which he is acquainted, as well as the tubes, are made by W. A. Demuth, artist in glass, 116 North William Street, New York.

Determination of Sugar in Urine.—In a paper read by Professor Seegen before the Medical Society of Vienna, he dwelt upon the contradictory results of existing methods of analysis, especially in regard to the presence of sugar in many physiological conditions, as, for instance, during pregnancy, and during the period of suckling, after inhalation of chloroform and ether, etc. The result of his trials of all existing methods showed that we have no reagent to prove minute traces of sugar dissolved in urine beyond doubt, and to the exclusion of all other analogous substances.

All statements as to the presence of minute quantities of sugar in many physiological and pathological conditions must be received with caution. Normal urine does not contain it in sufficiently large quantities to allow of its determination.

Normal urine contains minute quantities of reducing substances, but whether they consist of sugar, partially or wholly, cannot be determined by our known tests.

He mentioned as a new reagent for albuminous urine the following:—

The precipitate obtained by heating urine with nitric acid is carefully washed, to remove the least traces of urine, and is then redissolved with a little potash; a few drops of Fehling's copper solution is then added; a fine violet coloration is instantly produced, especially with a strong solution; the reaction is very characteristic, and readily shows one per cent. of albumen.

Fatal Poisoning following Local Application of Bichloride of Mercury.—English medical journals of September contain the statements of a case of fatal poisoning by the bichloride of mercury, which had been applied by a physician to the scalp of a child, for the purpose of destroying a parasitic growth. But a single application was made, the solution of the bichloride in alcohol, in the proportion of eighty grains to the ounce, being painted over the diseased surface—as recommended by Dr. Tilbury Fox.

Swelling of the head and face followed very quickly, and on the following day ptyalism was produced, which was so severe that it caused the death of the patient on the fourth day.

Nitrate of Amyl in the cramps and collapse of cholera is suggested by Balfour Jones (*British Med. Jour.*), in consequence of its known power of relaxing spasm of the involuntary muscular fibres of the blood-vessels and bronchial tubes.

Treatment of Nævus by the Galvano-Cautery.—Dr. Maas, of Breslau, has collected, in the *Archiv für Clinische Chirurgie*, the histories of 112 cases of nævus treated by the galvano-cautry. The results were as follows:—

Capillary Nævus, cured 32; improved, 1; result unknown, 1. *Cavernous or venous nævus*, cured, 72; improved, 8; result unknown, 1; died, 3. *Arterial or racemose nævus*, cured, 2; improved, 1. *Nævus combined with other tumors*, cured, 6; improved, 1; result unknown, 2. He derives from the examination of the cases the conclusion that the galvano-cautery is followed by the best results in nævus, and is much safer than the injection of perchloride of iron, or any other coagulatory fluid. It would, however, be wrong to say positively that the remedy is indicated in all cases of nævus.—*Br. Med. Jour.*

Embolism of the Central Artery of the Retina.—A case of this rare accident is reported in Number 560 of the *British Medical Jour.*, in which the blindness came on suddenly, commencing at the centre of the field of vision, but at no time did it become total, a fact worthy of note, as it is unusual. In this case the retention of the power of vision in a small portion of the field would seem to indicate that some other source of blood-supply than the retinal artery existed.

Polygonum Hydropiper.—J. S. Unzicker, M.D., Cincinnati, Ohio (*The Clinic*), recommends the saturated tincture of Polygonum Hydropiper (water pepper) as an emmenagogue. It was first recommended by the late Prof. John Eberle, in cases of amenorrhœa, in teaspoonful doses, three or four times daily. It was extensively used for many years by all the leading physicians of Cincinnati, and highly spoken of. This reputation it retained so long as the tincture was made of the right material, and the remedy given in the proper cases. But when it fell into empirical, both medical and pharmaceutical hands, and was given indiscriminately in all cases, and often made of the wrong material, it had, as a matter of course, to fail in many, and in consequence, like many other good remedies, was laid aside and partly forgotten. Dr. Unzicker believes it is the safest and best remedy in cases where the general health is not impaired, but when the menses are checked by cold, mental emotion, or other like cases, where you wish to bring them on without fear of producing congestion to the head or chest, a sequence to be dreaded.

Albuminuria in Variola.—M. Cartaz read, at the Lyons Medical Society (*Med. Times and Gazette*), an interesting paper on Albuminuria in Variola, which he terminated with the following conclusions: 1st. Albuminuria is met with in confluent variola in about the proportion of one in five cases. 2d. It may be—as is usually the case—only transitory, and exercise no influence on the progress of the variola; or permanent, and attended with all the consequences inherent in Bright's disease. 3d. Even when it is only a passing affection, it may in some cases give rise to serious accidents, as in the eclamptic forms of the disease, etc. 4th. In the hemorrhagic form of variola albuminuria is of constant occurrence, whether this arise from a lesion of the kidney, from a mixture of the blood, or from the two causes united.

A New Method of Performing Acupressure is spoken of, in *The Lancet* of Sept. 21, by R. Clement Lucas; his mode of accomplishing it being as follows:

An ordinary acupressure needle, having a ring at one end, is twisted so as to form a small loop about an inch from its pointed extremity, or at such a distance as the surgeon may think most convenient, varying with the size of the needle. A piece of fine wire is doubled in the middle, as in ordinary acupressure, and the loop thus formed is passed first through the ring at the end of the pin, then through the loop on the staff. After sufficient has passed to reach easily over the point of the needle, the loop of wire should be bent up at right angles, so as to be out of the way. In this way, needles should be kept ready for use.

In performing the operation for securing the vessel there are three acts. First, the point of the needle is passed under the vessel. Secondly, the loop of the wire is bent down over the vessel and slipped over the point of the needle. Thirdly, the vessel is compressed by pulling the free ends of the wire tightly through the ring at the extremity of the needle, and finally secured by bending back the wire at this point, or it may be made even more safe by giving the ends of the wire a twist around the needle close to the ring. To remove the needle, all that is necessary is to straighten the wire bent around the ring at its outer extremity; then on gently pulling the needle, the loop of wire glides along towards the point, and releases the vessel.

Should bleeding now take place, the vessel may again be compressed by pulling on the wire, providing that the pin has not been so far extracted as to have allowed the loop of wire to pass over its point. After the pin has been removed, the wire follows, as in the mode of acupressure described by Professor Pirie, under the name of "circumclusion."

Milk as an Article of Diet.—A writer in the *Journal of Applied Chemistry* states that in order to render milk more digestible its particles should be divided, which can be effected by bread or some other farinacious article. When cooked with rice and eggs (rice pudding) it forms the type of a proper food; containing nitrogen, phosphates, and starch. Milk, when used as a drink, should be boiled, then diluted with water. The solid matter of milk constitutes a little more than 12¼ per cent. of the whole, of which more than one-third is caseine, or the cheese principle, about one quarter is butter, and the balance sugar and salts. Of these substances the butter and sugar supply heat to the body, while the casein contains tissue-making material in a most concentrated form.

Wrist-Joint Dislocation.—According to Francis L. Parker, M.D., Prof. of Anatomy in the Medical College of South Carolina (*Trans. S. C. Med. Assoc'n*) there are 33 cases of so-called dislocations of the wrist-joint on record (omitting the cases of W. Parker and Renè), including his own, viz., case of dislocation of the wrist-joint backwards. Of these 23 are said to have been luxated backwards and 10 forwards, and of this entire number only 7, 5 backwards and 2 forwards, are free from all objection. Of the 26 cases of doubtful or unsatisfactory dislocations, 16 were complicated with fracture of one of the bones or processes connected with the joint; 3 were compound, 3 were incomplete, 2 were arthritic or pathological specimens, and 2 were objected to from other causes. Of the 33 so-called dislocations, the sex is recorded here in 14 instances; of these 11 were males and 3 were females. Of the 7 cases classed as genuine ones 1 post-mortem was made (case of M. Malle), which confirmed the diagnosis; in 6 remaining cases the patients regained the use of the limb in a very short time, without a tendency to displacement or deformity. Of these 7 cases accepted as genuine, 2 backward dislocations were produced, the force of the fall being received, in one instance, on the dorsum of the hand (Hamilton's); in the other upon the palmar surface (Parker's); in M. Malle's case, a forward displacement, the presumption is that the patient fell on the palm of his hand, but this is not definitely stated; and in the 4 remaining cases this point is not specified. He lays down the following practical conclusions which may be derived therefrom: 1st. The wrist-joint may be dislocated backwards or forwards without fracture or a rupture of the integuments: both are extremely rare; the backwards displacement is the most frequent. 2d. Cases of so-called dislocation of the wrist may be associated with fracture of the radius and ulna, or with either of these bones separately, with both styloid processes, or either of them, or with fracture of the articulating surface of the radius; no instance has been recorded of a dislocation of this joint complicated with fracture of the carpal bones. 3d. Dislocation of the wrist backwards or forwards may be complicated with rupture of the integuments anteriorly or posteriorly or laterally, with or without fracture of the styloid processes.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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New York, November 1, 1871.

A RELIEF FUND FOR THE SUFFERING MEDICAL MEN OF CHICAGO.

THE recent fire in Chicago has proved disastrous to the majority of the medical profession of that city. In another portion of the journal we give an account of the extent of the losses sustained. Most of the physicians lived in the burnt district, and the majority of these have literally lost everything. This means a great deal. Medical men, as a class, are not remarkably provident. Very few, if any, make anything more than a respectable living from the practice of their profession, and if a decent house is earned after years of toil and privation, and if a respectable library is collected as the treasure of old age, we are in a professional sense apt to call it wealth. When we imagine that all this, so dearly bought, so justly earned, and so conscientiously enjoyed, is swept from its possessor, thereby reducing him to absolute want, we can form some faint idea of the real suffering to which our good brethren of the ill-starred city have been subjected.

It is a very easy matter for a physician to lose his all; but, as in the present instance, a very hard matter to make these losses good. He may have had a fine practice, may have been favored by the patronage of the wealthy, but these patrons have, relatively speaking, been made as poor as himself. The position of the medical men there is just this: they are in need of substantial aid, which, we are happy to say, they are in the way of getting. From no other quarter could such assistance come and be more gratefully received than from their own fraternity.

New York has initiated a movement which, we have every reason to believe, will be followed by similar ones all over the Union. Already nearly five thousand dollars have been subscribed here, and the work is not yet finished. The physicians have thus far given freely and nobly, never questioning the necessity which calls forth their charity. We are well aware that of all the money so liberally sent to Chicago from every quarter of the globe, and which finds its way into the general relief fund, but a very small proportion will be drifted into the emptied coffers of the desolate physician. He does not, as a rule, belong to the whining class; and not being by nature importunate for help from outsiders, he is very likely to be overlooked in the general clamor after the necessaries. But our Chicago brethren must be made to feel that there are those of their profession scattered all over the country, in city, town, village, and hamlet, who can and will sympathize with them, and will stand ready to assist in this their hour of dire necessity.

Not only the physicians in Chicago, but the practitioners of the Northwest have suffered from a devastating conflagration, and these, too, should lay claim to a share of our pity and of the contents of our purses. In the present movement for assistance in New York, the claims of such are fully considered. We are not at the present writing informed of what may be doing in other cities in the same direction; but if New York is at present alone in this matter, it has shown and can still further show how large a sum of money may be raised when the proper incentive is present.

From all accounts there is not only a great need for money, but there will continue to be a want during the coming winter, and there must be more or less of a demand upon the general profession of the country. There should be a fund created sufficiently large to give aid to all the sufferers until they are able to help themselves. To this end every Society of any note throughout the land should organize and send in their contributions. There is certainly room for the exercise of charity in its largest sense. To such as are far removed from the pale of any local organizations, we would give the advice to transmit their contributions by mail to the nearest depot, to Dr. Hubbard, the Treasurer for this city, 27 West Ninth street; or to the RECORD. The Committee of Ten intend to continue in their work, if necessary, for months to come, and will soon perfect an arrangement whereby all moneys can be transmitted directly to responsible parties, who will insure their judicious distribution.

DR. CHARLES F. J. LORD, Hampstead, England, says it would be easy to fill columns of a medical journal with illustrations of the abominable abuse of the so-called *medical charities* in Great Britain. Some years ago he attended a grand dinner at one of the medical anniversaries, and among the toasts given was, "The Medical Charities of the City and their Officers." A physician attached to one of these charities returned thanks, and said, *inter alia*, "I am proud to belong to a profession which does much for nothing." It is presumable he meant for no money return. This boast somewhat annoyed Dr. Lord, as in a morning speech in favor of the Poor-law medical staff he had argued that "the laborer was worthy of his hire—worthy of a fair day's pay

for a fair day's good work done." He lived to see this man dependent upon the charity of his former patients and of his city brethren—a man of fine wit, cultivated taste, and genial heart:—a signal instance of the bombastic yet destructive influence of gratuitous medical service. How widely these evils have come into operation let the English Medical Benevolent Fund answer; the Epsom College, too; the Society, also, of the Widows and Orphans of Medical Men.

What is true of Great Britain is applicable to our own country, and Dr. Lord's remark is *apropos:* "That is not, and never will be, a good system which teaches the newly fledged professional man the policy of establishing himself in a position above his fellows, by founding a reputation on a practice without reward; which practice, if it were not gratuitous, must and would be distributed remuneratively among the profession altogether. It fosters, under the name of charity, that which is not charity; it often makes the wealthy ostentatious, and the poor improvident and exacting; and it sows among the profession a seed as poisonous as it is fruitful."

There seems to be a growing disposition on the part of the students of our literary institutions to prefer scientific to classical courses of study. This is certainly an indication of better things to come, and augurs well for the elevation of the standard of qualifications for medical students, for it is from such classes that we must recruit our best men. A knowledge of the classics is, in this practical age, at best, an accomplishment with which we can well afford to dispense if the same time is occupied in acquiring a knowledge of the fundamental principles which underlie every true science. If a young gentleman wishes to prepare himself for the proper study of medicine, he can discipline his mind as effectually by the study of German and French as he can by mastering the Greek roots and construing Latin sentences; while at the same time he is acquiring the kind of knowledge which can always be turned in his future studies to practical account. A knowledge of the modern languages is considered of such importance in the present day that some distinguished physicians past their threescore are striving with all the ardor of youth to acquire it. We do not wish to be understood as discouraging the study of the classics, except when it becomes a question of time, and in such cases we unhesitatingly recommend the so-called scientific course.

Reviews and Notices of Books.

Cancer, its Classification and Remedies. By J. W. Bright, M.D. Philadelphia: published by S. W. Butler, M.D. 1871.

This work should have received a more thorough revision before publication, since the style is too diffuse; there are unnecessary repetitions, as at page 40 and 101; the spelling is somewhat defective, and there is a want of clearness in some of the statements, which might have been corrected with advantage.

The book, however, seems written in a fair spirit, and the writer reports not only his success, but his failures. It is a compilation of the opinions of many authorities concerning the nature and treatment of cancer, and in addition to those is the writer's own experience during fifty-five years, which seems to have been large.

He is of opinion that cancer cells "are always local in their first appearance; and that they never become constitutional, except by absorption. . . . That tubercle shows no cancer cells; it is only born to die, while cancer cells are born to propagate.

"I have shown also that scrofula is a distinct disease from cancer, and that the treatment for the one will not cure the other. Moreover, scrofula is a disease of youth, while cancer is a disease of age."

With regard to remedies, the author writes: "I have numbered the principal remedies for external application used in the treatment of local cancer for the convenience of the practitioner. These are the principal remedies used, not, however, to the exclusion of all others; for in many cases, especially those of long standing, you must use constitutional remedies. These, as a general rule, must be left to the judgment of the physician, for whom alone this work is written. I have purposely given the remedies used by the most scientific physicians and surgeons of the medical world, so far as they have come to my knowledge, that those who have not read them may have a choice of remedies. I have given mine after trying those I thought best."

Any one who is interested in the subject of cancer will find considerable of interest in this volume.

Emergencies, and how to Treat Them. The Etiology, Pathology, and Treatment of the Accidents, Diseases, and Cases of Poisoning which demand Prompt Action. Designed for Students and Practitioners of Medicine. By Joseph W. Howe, M.D., Visiting Surgeon to Charity Hospital; Lecturer on Surgery in the Med. Dept. of the University of N. Y., &c., &c.

This little work, the only one of its kind published, treating exclusively of cases of emergency, is a handsome octavo volume of 295 pages. The author's large experience as an instructor has enabled him to condense within this narrow compass all that is practically valuable in the management of those cases which demand prompt action on the part of physician or surgeon. The style is concise, perspicuous, and definite. Each article is written as though that particular emergency were present; there is no waste of words nor temporizing with remedies of doubtful efficacy. Etiology and pathology, a knowledge of which is so important in the intelligent treatment of disease, have been as fully given as the limits of such a work would allow, and add much to its value. The articles on œdema glottidis, asphyxia, and strangulated hernia are particularly clear and practical, and furnish all the information required in the management of those urgent cases.

With the exception of a want of care manifest in the grammatical structure of the various formulæ, and certain verbal inaccuracies, the book has few blemishes.

It will be found invaluable to students and young practitioners, in supplying them with an epitome of useful knowledge obtainable from no other single work; while to the older members of the profession it will serve as a reliable and "ready remembrancer."

SKIN DISEASES: THEIR DESCRIPTION, PATHOLOGY, DIAGNOSIS, AND TREATMENT. By TILBURY FOX, M.D. First American from the last London Edition. Edited by M. H. Henry, M.D. W. Wood & Co., New York. 1871.

THE increased attention which is being paid to diseases of the skin by the profession of America seems to have suggested to the American editor of this hand-book the propriety of bringing out a reprint of it; and from the intrinsic merits of the work, we think that he has been wise in his choice, for, as he says in his preface, it is really based on "sound clinical observation," and it contains a rational system in the application of therapeutics. The first five chapters of the work are devoted to the Importance of Study of Skin Diseases, General Pathology, Elementary Lesions, Etiology, and Classification. These chapters are so lucidly and pleasantly written that their perusal would very favorably impress their reader; the one idea seems in the author's mind to be to invest his subject with simplicity, and in it we think it will be said that he has succeeded. It will also be observed that he treats his subject upon the broad principles of general medicine, and avoids the narrow limits of a specialty, and we think this is a great desideratum, for, as the book stands, it attracts persons to the study of its pages, whereas, if the diseases were treated as a special and obscure subject, it would repel many from trying to familiarize themselves with them. The subjects of general pathology, elementary lesions, and etiology are very clearly and admirably treated. The classification is noticeable for its simplicity, and is elaborated upon a clinical basis, resembling, but improving very much upon, one of Mr. Wilson's classifications. The study of these diseases will, we have no doubt, be much simplified by a perusal of the chapters treating of elementary lesions, general diagnosis, prognosis, and treatment. Eczema is considered by Dr. Fox as a catarrhal disease of the skin, in contradistinction to impetigo, which is of the pustular variety, and to lichen, which he considers is a true plastic inflammation of the skin. In these views it will be seen that our author is at variance with many other modern observers. He divides eczema into three forms, eczema simplex, eczema rubrum, and eczema impetiginodes, and in this he follows Wilson. His description of this disease, as well as that of impetigo and lichen, is clear, and the treatment is plainly given. Under the head of impetigo he describes a disease, which from the peculiar contagiousness of its secretion, he calls impetigo contagiosa. There is a difference in opinion as to the real nature of this disease, but it seems that it is becoming to be accepted as a special disease by most modern observers. The remaining pustular diseases, namely ecthyma, furuncular affections, and Delhi boil, are considered at some length, and their treatment is fully in keeping with the rest of the work. The bullous affections include herpes and pemphigus, and though only eleven pages are occupied in their description, all of their prominent features are brought out. We find that psoriasis is classed as an alphous disease, and that Dr. Fox applies to it the old title, lepra vulgaris. The chapter on lupus is, we think, not sufficiently full, and we are sorry to see this disease classed as one of strumous origin, since many cases of it occur in which such an origin cannot be proved. The syphilitic skin diseases receive due consideration, and the description of true leprosy is short but excellent. Those important classes of skin diseases which are due to vegetable parasites, and which Dr. Fox, following the nomenclature of the English College of Physicians, calls tineæ, are fully described, and minute directions are given for the detection of the parasite. The remaining chapters of the book, including neuroses of the skin, hemorrhages, pigmentary diseases, and disorders of the glands, are equally as full as the previous ones, and at the end we find a copious formulary and a glossarial index. The editor has displayed excellent judgment in the performance of his task. The work is well printed upon good paper, and is handsomely bound.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Anniversary Meeting, October 2, 1871.

DR. ABRAHAM JACOBI, PRESIDENT, in the Chair.

THE PRESIDENT announced the admission to membership of Drs. William A. Ewing, Leopold Goldschmiedt, Gustavus Frauenstein, Lewis Conrad, Wolfgang Schmidt, Isidor Stachelberg, Henry R. Pratt, William Frothingham, and John C. Jay, Jr.

MINUTES OF COMITIA MINORA—AN INJUNCTION.

The next business in order was the reading, by the Secretary, of the minutes of the Comitia Minora for the past year. This was proceeded with through a part of the minutes, when it was announced that the reading of the remainder was prevented by a legal injunction, which had just been served, restraining the Comitia Minora from publishing, in any manner, that part of their proceedings relating to "charges against a member," or from making any report upon the same. Such an unlooked for state of affairs seemed likely to provoke a warm discussion, but, at the request of the Chair, this was refrained from until the regular business could be disposed of.

TREASURER'S REPORT.

This was read by Dr. Janvrin, Treasurer since the death of Dr. Bibbins, and showed a satisfactory balance on hand of $503.87. Accepted and ordered on file.

ELECTION OF OFFICERS.

The balloting for officers resulted in the election of the following:

President—Dr. Abraham Jacobi; *Vice-President*—Dr. Ellsworth Eliot; *Recording Secretary*—Dr. Alfred E. M. Purdy; *Corresponding Secretary*—Dr. Bradford S. Thompson; *Treasurer*—Dr. Joseph E. Janvrin; *Censors*—Drs. Wm. M. Chamberlain, Edward S. Dunster, Charles C. Lee, John C. Peters, and Stephen Rogers; *Delegates to State Society* (for three years, to fill vacancies)—Drs. J. R. Leaming and E. B. Warner.

Prior to the balloting, Drs. Flint, Finnell, and Chadsey withdrew their names as candidates, respectively, for the offices of President, Vice-President, and Recording Secretary. On the first vote for Censors, Dr. Frank P. Foster, who had been regularly nominated at the last meeting, was one of the number elected, when it was discovered that he was not a member of the Society.

CONCERNING APPEALS TO LAW.

DR. STEPHEN ROGERS introduced the following preamble and resolution, and moved their adoption:

Whereas, Paragraph 2, Section 1, of Chapter 445 of the Laws of the State of New York, entitled *An Act to*

Regulate the County Medical Societies of the State of New York, declares that "each County Medical Society shall have full power and authority to enforce discipline among its members and obedience to its rules and regulations, with power to expel, or otherwise discipline, as they may deem most advisable for the best interests of said Society" [see Transactions of State Society, 1869, p. 63]; and

Whereas, The Medical Society of the County of New York has, by its regulations, referred all questions of ethics and discipline to the Comitia Minora, with power to conduct their proceedings in such a manner as they may deem expedient, and as may be in accordance with its By-Laws (see By-Laws, Chap. ix, Art. 6.);

Resolved, That if any member of this Society, against whom charges are brought, in the form required by the Comitia Minora, or any member who shall have thus preferred charges, shall refuse to obey all requests of the Comitia Minora pertaining to the investigations into such charges, or shall not present to the Comitia Minora an acceptable excuse for a failure to obey such requests, such member is guilty of an offence against this Society which renders him or her liable to expulsion; and further, if it appear that any member, so charged or bringing charges, has resorted, or is about to resort, to courts of law, instead of abiding by the rules and orders of this Society and its Comitia Minora, that act, or that contemplated act, shall be regarded by this Society as that of one no longer a member of it, and the name of such person shall be, without further proceedings, stricken from the official list of members of this Society.

Dr. B. I. Raphael wished more light upon the facts which had called forth the resolution, before he could vote upon it intelligently.

Dr. Marion Sims considered that the Society had full power summarily to expel a member disagreeable to it from whatever cause; but thought its proper course was to await the decision of the court at the hearing on the injunction, before taking any action, direct or indirect, upon the case in question.

After some further discussion, the resolution was laid upon the table.

AMENDMENTS TO BY-LAWS—A COMMITTEE WITH NO DUTIES.

The first of the amendments proposed at the last meeting—that establishing a permanent Committee on Registration—was adopted, as follows:

Chap. X., *Article* 1, to read: "The following permanent committees shall be appointed by the President as soon after his election as may be, viz.: The Library Committee, Committee on Intelligence, Meteorological Committee, Committee on Diseases, Committee on Registration, and a Finance Committee."

The next amendment was:

Chap. X., *Article* II.—"The Committee on Registration shall prepare a list of all practitioners of medicine and surgery in the county of New York who, having received a diploma from any medical college or institution recognized by the American Medical Association or by the Medical Society of the State of New York, conform to the codes of ethics of these societies. Said list shall include the name of the college or institution from which the respective persons named received their diplomas or licenses, the date of the same, and the residence of the person; and said list may be examined by any member of this Society. Any person whose name the Committee on Registration may find reason for excluding from such list, may appeal from their decision to the Comitia Minora and to the Society at its anniversary meeting. Though not obligatory, it is deemed very desirable that the Committee also prepare a list, as nearly correct as practicable, of the names, period of residence, date of and age at death, of all the reputable physicians and surgeons who have lived and practised their professions in the territory now known as New York County, including such other details as they may think proper."

Dr. F. Elliot thought the proposed article should be entitled "A By-Law to provide for the summary disciplining of members without the necessary action of the Society," for it practically gave the responsibility of decreeing and administrating the second of the three grades of punishment in the power of the Society—reprimand, suspension, and expulsion—to a committee not elected by the Society, but appointed by its President. If a member's name were dropped from the list, it was equivalent to publicly accusing him either of having no recognized diploma or of having violated the code of ethics; and to virtually suspending him, it might be for a year, he having no appeal to the Society until its next anniversary meeting; and meanwhile no member whose name was borne on the list could consult with him without subjecting himself to the charge of quackery. Moreover, it was not stated in what manner the committee should perform its duties—what opportunity should be given a doomed or suspected practitioner for vindicating himself before having his name stricken from the roll. If the Society proposed to delegate its authority of discipline to such a committee, it ought certainly to provide the proper working machinery.

Such a plan of discipline as this amendment would establish, if not in direct violation of the letter of the Society's constitution (which the speaker had been unable to examine carefully), was surely in opposition to its spirit. By existing rules all charges against a member were made, not publicly, but secretly, and referred to the Comitia Minora, an elective body, for investigation. If the member was here acquitted, neither the charges, nor even the fact that charges had been made against him, ever saw the light. But in the event of conviction by the Comitia Minora, its proceedings must be reported to the Society for the final decision. Now it was proposed to give a less responsible body, an appointed committee, the power to spring a trap on a man—punish him first by a public suspension, and hear him afterwards, if he should choose to appeal.

Again, the amount of earnest, self-sacrificing labor required to effect a thorough registration was doubtless little realized by those who had no practical experience in the matter. This work had, for some years past, been in the hands of a society numbering at least twenty efficient members, and some of these, now present, could testify to the time and trouble it involved. It was almost idle to hope that any committee which might be appointed, beginning the work *de novo*, as it ought, could finish it satisfactorily in a single year. But the next year a new committee would be assigned the task and have to begin it over again. The Registration Committee, to inspire the necessary confidence, must be composed of men widely and favorably known to the profession and the public; they must be men of such ability and attainments as to command eminence. Would it be possible to find enough such men who could be induced to spare the requisite time from their already pressing engagements? If the County Society wished to take into its own hands the burden and the responsibility of preparing the register, the members of the Medico-Historical Society would only too gladly resign them; but, in the speaker's opinion, the County Society was not ready to take this step.

As an amendment to the amendment, he moved such omissions and additions as to make the article read:

"The Committee on Registration shall prepare a list, as nearly correct as practicable, of the names, periods of residence, dates of diplomas or licenses, and institutions from which these were received, dates of and ages at death, of all the reputable physicians and surgeons, deceased, who have lived and practised their profession in the territory now known as New York County, including also official titles held by them at their decease, and such other details as the Committee may think proper."

Dr. O. White, in seconding the motion, said that the article, as originally proposed, was certainly contrary to the existing by-laws of the Society.

Dr. Ellsworth Eliot explained that the article had been presented in accordance with the recommendation of the President of the State Society at its last meeting. He was confident men of the right stamp could be found to serve on the Registration Committee, and was opposed to making it only a committee on dead men.

Dr. F. Elliot said that the recommendation referred to contemplated chiefly the rural counties, where there was no existing registration, and where it was expected that every reputable practitioner would be a member of the County Society. In New York and the adjacent cities we had already an efficient registration, and the membership of the Society of the County of New York probably did not include even a majority of the respectable physicians practising within the county limits. Moreover the State Society could hardly have intended that any County Society should delegate its power of discipline to its Registration Committee.

Pending the consideration of Dr. Elliot's amendment, the whole subject was, on motion of Dr. Raborg, laid on the table.

CHANGE OF MEETING-DAY.

The next of the proposed amendments was the substitution of "last Monday" for "first Monday" in Chap. xi., *Arts.* 1 and 2. It was amended by changing "last" to "fourth" in both cases, and by substituting "annual" for "anniversary" in *Art.* 1; and was then adopted. This makes the Annual Meeting fall on the *fourth* Monday of October, and the Stated Meetings on the *fourth* Monday of every other month except July and August.

WOMEN AND GRAMMAR.

The last proposition of amendment was to change Chap. xiv., *Art.* 1, so as to conclude: "They shall grant him a certificate of membership, subject to the approval of the Society." It was moved to amend this by inserting after "him" the words "or her." The explanation was made that women were already members of the Society, which, by its action in admitting them, had practically interpreted the masculine pronoun, wherever occurring, as including both sexes. A division of the house being called for, the words "or her" were declared inserted by a vote of 55 to 19. The main question was then carried.

Dr. Chadsey now moved a reconsideration of the vote whereby the first amendment was passed, providing for the Committee on Registration, since the subsequent action of the meeting had left that committee with no duties. The motion was lost.

DR. ROGERS' RESOLUTION AGAIN.

On motion of Dr. M. H. Henry, the preamble and resolution presented by Dr. Rogers were taken from the table and re-read.

Dr. Henry.—It seems to me, Mr. President, that if the members had understood the occasion and the purport of that preamble and that resolution, they would never have voted to lay them on the table; and for their enlightenment I will tell them the facts that I happen to know—that recently a member of this Society preferred charges, in proper form, against another member, Dr. Ruppaner—

The President called the speaker to order, and requested him to mention no names.

Dr. Henry.—I have to say, then, that this member against whom the charges were preferred (whose name I am not permitted to mention), did go before Judge Barnard, and obtain from him an injunction against the members of the Comitia Minora, and each of them, and against Dr. Sayre in particular. Now I am advised by a distinguished lawyer that this injunction is only of force as against the Comitia Minora and the last-named gentleman; and that it is perfectly competent for us, as a society, and for any member not specially enjoined, to discuss the whole matter.

The President.—Then I, as a member of the Comitia Minora, must retire from the chair.

On motion, the meeting now resolved itself into Committee of the Whole, Dr. John O. Stone in the Chair, and Dr. Bradley, Secretary.

Dr. Henry, taking the floor, obtained a copy of the order of injunction, which he read as follows:

Supreme Court—City and County of New York.

Injunction by Order.

Anthony Ruppaner, plaintiff, *against* Austin Flint, Alfred E. M. Purdy, Wm. Thompson, Ellsworth Eliot, Thomas C. Finnell, John C. Peters, Abraham Jacobi, Stephen Rogers, Joseph A. Janvrin, and Lewis A. Sayre, defendants.

It appearing satisfactorily to me, by the affidavit, as well as the complaint, of the plaintiff, that sufficient grounds for an order of injunction exist: I do hereby order and enjoin that the defendants, Austin Flint, Alfred E. M. Purdy, William Thompson, Ellsworth Eliot, Thomas C. Finnell, John C. Peters, Abraham Jacobi, Stephen Rogers, Joseph A. Janvrin, and Lewis A. Sayre, and each of them, and their agents and attorneys, refrain from proceeding against the plaintiff in the charges, or so-called charges, of the defendant, Lewis A. Sayre; and from assuming to offer, or to receive, any statements, documents, or evidence in support thereof, and from presenting, or hearing the accusations mentioned in the complaint herein; and from making or procuring any report or decision therein; and from publishing or communicating any proceedings therein which have been hitherto taken, or any statements, papers, or evidence that may have been offered or received in support of such so-called charges; and from doing or permitting any other act or thing in aid or furtherance of the proceedings aforesaid.

And it is further ordered that the defendants show cause before me, on the 10th day of October, 1871, at 12 o'clock, noon, on that day, or as soon thereafter as counsel can be heard, why this order should not continue in force and be made perpetual—until the further order of this Court; and in case of disobedience to this order, you will be liable to the punishment therefor prescribed by law. Dated New York, September 30, 1871.

(Signed) George G. Barnard,
J. S. C.

Resuming his remarks, Dr. Henry characterized the obtaining of the injunction as the act of a man evidently conscious of guilt, and seeking by this means to prevent any fair hearing of his case. It was in violation of every principle governing the conduct of a gentleman towards his professional brethren. Such an attempt to gag the Comitia Minora of the Society, and to interfere with the regular course of discipline of the Society itself, should be properly resented; and the speaker knew of no better way than the passage of the pending resolution to show both the member who had thus placed himself beyond the pale of professional recognition, and the judge who had aided him, what was

thought of their action by a Society chartered half a century before Judge Barnard dreamed of entering the law. There was no injunction against the Society's thus expressing its opinion.

The Chairman said that, so long as the injunction was legally in force, it was only decorous for the whole Society to act in accordance with it. He was in favor of obeying the law.

Dr. Noyes could not fail to sympathize with the spirit of the last speaker but one, for the course of the member in question was such as no honorable man, feeling himself in the society of his peers, could think of pursuing. But with regard to practical action, he must agree with the Chair. The subject had now been pretty thoroughly ventilated, and the man chiefly concerned had certainly not improved his standing in the estimation of the Society or the community. There was no necessity for any hasty or ill-considered action, unbecoming the dignity of the Society. The case would come before the court, for a hearing, in a few days, and after the decision was known it would be time enough to act. He moved, therefore, that the committee rise and report that in its judgment the resolutions ought not to pass.

Dr. Henry seconded Dr. Noyes's motion, saying that he recognized the force of his remarks, and that he had himself accomplished his purpose, to "ventilate" the matter. The motion prevailed.

The Committee of the Whole now rose; and, in accordance with its report, the Society negatived the resolutions.

Adjourned to meet at the call of the President.

[*Official.*]

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 11, 1871.

Dr. A. L. Loomis, President, in the Chair.

A BICIPITAL MONSTER.

Dr. Koehler, on behalf of the committee appointed to examine and report upon the anatomical characters of the monster exhibited at the last meeting, submitted the following report:

External Character.—A trunk, with two heads, three arms, and two legs.

Skeleton.—Two spines, superiorly two inches distant from each other. Descending, they converge and terminate each into a sacral bone. The third arm, descending on the back of the monstrum, rises from two scapulæ, and contains one two-headed humeral bone, two radii, and one ulna, terminating into two hands, which are united by growth on their ulnar sides. There are two sterna, united by cartilaginous tissue. From both scapulæ of the third arm two clavicles proceed to their respective sterna, and meet them at those upper angles which are separated by the cartilaginous substance. These two clavicles are very much curved, and are each 1½ inches long. From each spine rise regular ribs for the right side of the right child and for the left side of the left. For the other sides of the children there rise but rudimentary ribs one inch long. There is but one pelvis.

Circulatory System.—There are two hearts. The heart of the right child had been so dissected and torn on first autopsy that it could not be examined fully. The four cavities are present, and the left side of this heart appears nearly normal; the interventricular septum is perfect. The pulmonary artery is small, almost rudimentary, and without valves. The heart of the left child, not having been previously dissected, is more fully examined. The cavities of this heart, and the valves, have nearly their normal size and development. The two auricles are separated from each other, and there is no foramen ovale. The pulmonary artery is perfect at its origin from the heart, having valves of normal size, but instead of dividing in two branches, which are to pass into either lung, it can be traced above the lungs towards the neck; and as no descending vena cava can be discovered apart from this vessel, it appears that the pulmonary artery and descending cava are united in one vessel. The ductus arteriosus was large, and a probe could be passed through this vessel from the aorta to one lung. There are either no branches from the pulmonary artery to the lungs, or they are minute and rudimentary. In other respects this heart and the vessels in immediate relation with it present the normal appearance. From each heart rises an arcus aortæ which emits the regular arteries. The descending aorta of each heart perforates the diaphragm, and then immediately below it forms, with the descending aorta of the other child, an arch which gives off two iliacæ. The descending aortæ and the art. iliacæ form a figure representing two U's, united on their curves.

U
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There is but one vena cava inferior, which, after having passed through the diaphragm, divides into two branches, which pass in either heart.

Lungs.—Each child has its lungs. The three lobi of the right side are rudimentary in both children.

Liver.—At first view there seems to exist but one liver; but on close examination it is obvious that it is a union of two livers, each of which has a gall-bladder. This double liver extends through the epigastria and hypochondria of both children.

Alimentary Canal.—Each child has an œsophagus and a stomach. The intestinal tube of each child, traced from the pylorus, runs regularly through the length of thirty-five inches, presenting a mesenterium. Then the intestinal tubes of both children run, closely attached to each other, through the length of sixteen inches. Then both tubes become one tube, presenting a single lumen. This latter portion is preserved in the specimen to the extent of twenty inches, the remainder having been cut off by those who made the first autopsy.

The kidneys are taken out, also the internal sexual organs. (A physician who witnessed the first autopsy states that a uterus and a urinary bladder were found in the pelvic cavity; furthermore, that each child had a kidney on the side opposite to the line of concretion.)

There is an anus. The female sex is distinctly marked exteriorly.

Aug. Koehler,
Robt. Watts,
J. Lewis Smith.

Dr. Peugnet exhibited a lipoma removed by Dr. Teats from a patient aged 53. The tumor commenced growing 20 years ago from the external aspect of the left arm, about 3 inches from the acromion process, and at the time of its removal its measurements were around its base 13¼ inches, vertically 25 inches, and obliquely 24 inches. The pedicle was exceedingly small, and was divided by the scissors. There was very little hemorrhage. The tumor weighed 9 pounds.

Dr. Finnell referred to a patient, aged 60, from whom he had removed a similar growth weighing 7 pounds, and which had been growing 12 years.

Dr. Finnell presented the uterus, taken from the body of an unmarried woman, aged 25. Finding herself seven months pregnant she determined to have an abortion produced, and after resorting to means of her own devising, applied to an abortionist, who consented to perform the operation, provided she consented not to divulge. She kept her promise to the last. At the autopsy, made at the instance of the coroner, the uterus was found much enlarged, measuring five inches in one direction and four in another. On the anterior and superior portion of the fundus, and in the substance of its walls, was an abscess containing five or six ounces of pus. It seems that a local inflammation had been excited at that point, and the abscess had made its way toward the peritoneal cavity, and it had progressed so far that it was impossible to preserve it intact while opening the peritoneal cavity. Portions of the placenta were still adherent to the internal surface of the organ. The cervical canal was not in any way injured. In answer to a question, he remarked that it was the exception rather than the rule in these cases to find any evidences of injury to the cervical canal or body of the uterus.

Dr. Janeway stated that he had met with two cases of abscess following confinement. One of these was in the cervix, and the other in the body of the organ. He had also met with a similar abscess in the bladder, the result of urethritis.

Dr. Van Geison presented a portion of the duodenum and pylorus removed from a woman, aged 45 years, who had been suffering for a long time from what her attending physician had denominated gastritis. She had been under the care of several physicians, but finally drifted into the hands of an homœopath. Dr. Van Geison was sent for in the last period of her illness to alleviate an excruciating epigastric pain, and for which her homœopathic attendant had prescribed without much success. An hypodermic injection of 12 drops of Majendie's solution was administered. She was also directed to take 30 minims of tinct. of hyoscyamus, and an eighth of a grain of morphia, in case the pain should return, and to repeat the dose every hour. At the time he saw her she was vomiting incessantly. The character of the ejecta was very peculiar, and resembled in every respect tobacco juice. He saw her a second time, two hours after the first visit, when she expressed herself much relieved. Her vomiting had ceased, but her pulse was very rapid, and she seemed in a moribund condition. No diagnosis was made. A careful search failed in finding any tumor or in confirming the suspicion of the existence of cancer of the stomach. She died a few hours afterward.

An autopsy was requested, and after much difficulty it was obtained; in the mean time a certificate was given to the effect that death had been caused by a perforating ulcer. On opening the abdomen the first thing which presented itself was a portion of the pylorus with a perforating ulcer, with characteristic abrupt margins. The communication had evidently been established very recently, as there were no signs of peritonitis present.

Dr. Finnell remarked that in his experience perforating ulcer had a very short history. The patients, which were in the majority of cases females, would complain of a very severe pain in the epigastrium, and would then be seized with collapse.

Dr. Janeway had presented a specimen of this ulcer. The symptoms had been complained of for a year and more, and there were found at the autopsy two or three ulcers which had healed.

Dr. Loomis remarked that the histories of these ulcers were those, of dyspepsia, and that very often the ulcers form and heal in turn, and the patients die of some other disease.

Dr. Van Geison also presented the uterine contents which had been discharged by a lady aged 35. The doctor was called to her on the Monday night previous. She stated that she had not menstruated for three months, and had some pain in the uterine region. Fearing that a miscarriage was possible, she desired, contrary to the ordinary rule, to prevent it. Her youngest child was three years of age, and since it had been weaned she had not missed a single catamenial term. About 10 o'clock on Monday evening her pains became very severe, and were accompanied with more or less hemorrhage. On vaginal examination the uterus was found high up, and the anterior lip of the os was so prominent that at first it was thought to be a presenting part. She was left for a time, and in the course of two hours the specimen was discharged. It consisted mainly of a good-sized blood clot, in the central substance of which were clusters of minute globules, varying in size from a millet-seed to a small grape. No traces of a fœtus could be found. He exhibited the specimen more for the sake of ascertaining its true character, stating that he had examined the globules microscopically, and found the membrane to be transparent and the contents to be composed of fine granules suspended in a fluid. Never having seen the like before, he suspected that the case might be one of hydatids.

Dr. Janeway believed it to be an instance of cystic degeneration of the chorion, the death of the fœtus being caused by the effusion of blood between the chorion and uterus.

Dr. Janeway presented a cerebral tumor, with the following history, furnished by Dr. Teakle, Resident Physician of Charity Hospital:—

Mary Kelly, æt. 46, admitted (service of Dr. Shiff) Oct. 20, to Charity Hospital, unable to speak; large bed sores over sacrum and buttocks; partial hemiplegia left side. The left calf measured 1½ in. less than the right. Some facial paralysis; lower jaw pulled towards left side. Died suddenly early in the morning of the 10th inst.

Autopsy, 11 hours after death. Large woman; well nourished. Rigor mortis marked. Bed sores over sacrum and left buttock.

Brain—Skull.—Very deep Pacchionian depressions. A tumor about two inches in diameter, and one and a half inches thick, situated at posterior part of middle fossa, left side, over petrous portion of temporal bone, one-third of it encroaching upon tentorium; intimately adherent to inner surface of dura mater, from which it could not be detached but by cutting. This tumor pressed immediately upon the pons varolii and crus of that side, which were softened (almost diffluent). Tumor gritty to the feel; this condition being more apparent at that part attached to dura mater. It appeared to be made up of small granules, with some trabeculæ running through it here and there, the whole enclosed in a fibrous sheath. Another smaller tumor about half an inch in diameter, in centre of middle fossa, left side, adherent to external surface of dura mater, resting directly upon the bone, which was eroded. Upon right side a number of small tumors from pin-head to half-pea, attached to outer surface of dura mater, and pressing upon the branches of the trifacial nerve, which were softened and flattened; subjacent bone eroded. Lateral ventricles very much dilated (more than twice their normal capacity). The passage between third and fourth ventricles easily admits little finger without tearing brain-tissue. Convolutions flattened; brain-tissue flabby; spinal cord normal.

Lungs—Left.—A small spot of cheesy degeneration at base anteriorly; smaller bronchi filled with mucus; balance of lung congested and œdematous.

Right, congested and œdematous.

Heart—normal. *Liver*—tissue normal; prolonged left lobe. *Kidneys*—congested; capsule easily stripped; small quantity of pus in pelvis of right; few small cysts upon surface. *Spleen*—normal. *Intestines*—entire lower half of ascending colon adherent to parietes of abdomen. No other abnormalities.

He next exhibited two supra-renal capsules taken from a patient who had died in his service at Bellevue Hospital, and who was admitted suffering from chronic dysentery which had been of three months' duration. During the last month of illness he had more fever than the intestinal trouble could account for. With this there was a good deal of emaciation. The left lobe of the liver was found very small, and the right lobe was apparently normal, reaching down to the free border of the ribs; while below was a tympanitic sound on percussion. Four days previous to death symptoms of pneumonia developed themselves in the posterior part of the right lung. With this was excessive tenderness from the median line to the right over the hepatic region, and particularly below the free border of the ribs. Besides, there was a marked and sudden enlargement of the right hypochondrium, with dullness from free border of ribs downwards three inches. These symptoms, together with a marked increase of temperature, favored the diagnosis of hepatic abscess as a sequel to the dysentery.

At the autopsy pneumonia was discovered in the posterior part of the right lung, of about four days' duration. Scattered throughout both lungs were numerous small miliary tubercles. The heart was normal. The right lobe of liver was found enlarged, the right lobe reaching three inches below the ribs. The left lobe was very small. The large intestine showed evidences of chronic dysentery; the mucous membrane was thickened, congested, and ulcerated, the ulcers having the pigmented border characteristic of long duration. The kidneys contained miliary tubercles. The supra-renal capsules were larger than normal, were in a state of hyperplasia, and contained cheesy matter.

There was no bronzed color to the skin. The tympanitis below the free border of the ribs was occasioned by the intestine which had crowded itself between the liver and the abdominal wall, and had remained there for a considerable period. The cause for the pain and tenderness at that point could not be accounted for. The capsules measured, respectively, two and two and a half inches in length.

RELIEF FOR THE PHYSICIANS OF CHICAGO.

Dr. F. H. Hamilton offered the following, which was unanimously adopted:—

Resolved, That the following communication be sent to our brethren in the medical profession of the city of Chicago.

Believing that in consequence of the recent calamitous fire, many of you have suffered serious pecuniary losses, and fearing that some may be in actual want, we desire to be informed what aid we can tender you. We would be glad to inaugurate measures for the establishment of a "relief fund," and to appeal to the medical profession in this city and throughout the country in its behalf, provided you confirm its propriety and necessity.

It is perhaps needless to say that while we would not stay the hand of charity extended to the suffering people of Chicago without reference to class, this suggestion of relief is not intended to reach any except those whom we recognize as honorable and legitimate members of our profession.

Resolved, That upon the receipt of an answer to this communication, affirming the necessity of aid, the President and Secretary of this Society shall call at once a meeting of the medical profession of the city.

The Society then went into executive session.

RELIEF FOR THE MEDICAL PROFESSION OF CHICAGO.

At the meeting of the New York Pathological Society, held October 11, 1871, Dr. Frank H. Hamilton presented a communication setting forth the necessity for extending pecuniary aid to the medical men of Chicago who had suffered from the recent fire. The Secretary of the Society transmitted the document immediately, directing the same to Drs. Rauch and N. S. Davis, of Chicago, in care of Gen. P. H. Sheridan, at the same time asking that the necessary reply should be sent by telegraph in case the proposition of the Society should be formally entertained.

On Friday, October 13, a few members of the profession, representing all the Societies, assembled at the College of Physicians and Surgeons, when, after the appointment of Dr. E. R. Peaslee as Chairman, and Dr. A. E. M. Purdy as Secretary, it was concluded to take measures to call a general meeting, without waiting for the reply to the New York Pathological Society. It was thought that such was the best way to save time, as it was hardly possible that the physicians of Chicago could object to the measure, and that when the reply should come much money might already be raised and be ready for immediate transmission. Circulars were accordingly issued, calling a general meeting of the profession for the evening of October 16, 1871, at the same place.

The meeting was largely attended, and was called to order by the temporary chairman.

On motion, Dr. Peaslee was elected Permanent Chairman, and Dr. A. E. M. Purdy, Permanent Secretary.

Dr. Peaslee gave an account of the origin of the meeting, and stated its objects.

Dr. S. D. Hubbard was elected Permanent Treasurer.

Dr. Frank H. Hamilton remarked that the Secretary of the New York Pathological Society, who was temporarily detained from the meeting, had received a telegram that evening which might be interesting to those present. He then read the following:—

"To George F. Shrady, M.D., Sec. N. Y. Pathological Society:—More than half lost everything. Approve idea: further by mail. John H. Rauch, M.D."

In order to explain its significance he then read the communication which had been presented to the Pathological Society.

THE COMMITTEE OF TEN.

Dr. E. S. Dunster moved that an executive committee of ten be named by the President.

In accordance with the same the following gentlemen were appointed, with power to add to their number:—Drs. Ellsworth Eliot, Frank H. Hamilton, George F. Shrady, Charles McMillan, E. S. Dunster, Alfred Underhill, J. C. Peters, F. A. Burrall, F. A. Castle, and A. E. M. Purdy.

The following gentlemen were added to that committee:—Drs. Gov. M. Smith, A. Jacobi, A. L. Loomis, I. E. Taylor, E. Krackowizer, and T. G. Thomas.

It was suggested that the matter should be brought to the notice of medical students of the city, and Dr. Hamilton was requested to do the same for Bellevue Hospital Medical College, Dr. Loomis for the University Medical College, and Dr. Thomas for the College of Physicians and Surgeons.

During the meeting the members present liberally subscribed to the fund, and their donations, together with those who were absent but sent their checks, amounted in all to two thousand four hundred and forty dollars.

After an announcement to the above effect the meeting adjourned. Immediately after the adjournment, the Executive Committee met and elected Dr. Hamilton Chairman, and Dr. Purdy Secretary. It was also agreed to call a meeting of the committee on the day following.

EXECUTIVE COMMITTEE FOR RELIEF OF PHYSICIANS OF CHICAGO.

Pursuant to a call, the members of the committee met at the house of the Chairman, Dr. F. H. Hamilton, Tuesday, October 17, 12 M. Present—Drs. Hamilton, Purdy, Eliot, Hubbard, Burrall, Dunster, McMillan, Underhill, J. C. Peters, and Geo. F. Shrady.

Dr. Eliot suggested that the city be divided into districts corresponding with the wards, and that each member canvass one or more districts for the sake of giving every member of the profession a chance to contribute. It was also agreed that the members have the privilege of asking assistance of gentlemen in their districts, and that such appointees should be considered as invited to meet with the General Committee and take part in its deliberations.

The following assignments were then made for the several wards: First, Second, and Third, Dr. Loomis; Fourth and Seventh, Dr. Purdy; Fifth, Dr. T. G. Thomas; Sixth and Fourteenth, Dr. G. M. Smith; Eighth, Dr. Isaac E. Taylor; Ninth, Dr. Eliot; Tenth and Thirteenth, Dr. Jacobi; Eleventh, Dr. Krackowizer; Twelfth, Dr. Dunster; Fifteenth, Dr. Burrall; Sixteenth, Dr. McMillan; Seventeenth, Dr. Krackowizer; Eighteenth, Dr. Underhill; Nineteenth, Dr. Peters; Twentieth, Dr. F. H. Hamilton; Twenty-first, Dr. G. F. Shrady; Twenty-second, Dr. F. A. Castle.

It was moved that the President of the General Meeting, Dr. E. R. Peaslee, the Chairman of the Executive Committee, Dr. Hamilton, and the Treasurer, Dr. Hubbard, be authorized to dispose of and transmit moneys to Chicago at their discretion.

A list of the names of such gentlemen who had either been visited or had subscribed was then read, after which the meeting adjourned, to meet on Saturday, October 21, at 8 P.M., at the same place.

A second meeting of the committee was held at the house of the Chairman, on Saturday, October 21, at 8 P.M. Present—Drs. Hamilton, Hubbard, McMillan, Purdy, Underhill, Dunster, Burrall, Peters, Castle, G. M. Smith, Eliot, and G. F. Shrady. Also the following additional members: Drs. Isaac E. Taylor, Packard, Caro, De Mainville, Werner, and Messenger. The following were also appointed: Drs. John Shrady, B. Howard, G. W. Robinson, H. F. Sheldon, and Fairbrother.

A REPLY FROM CHICAGO.

Dr. Geo. F. Shrady then read the following letter, which he had received since the last meeting of the committee:—

BOARD OF HEALTH,
OFFICE OF SANITARY SUPERINTENDENT.
Chicago, Oct. 16, 1871.

My dear Doctor:—Owing to the general confusion I did not receive your communication and the resolutions of the Pathological Society of New York, until yesterday. I immediately telegraphed you, and in behalf of the profession of this city I thank you greatly for their kind and considerate action.

Unfortunately two-thirds of the offices of the medical men were located in the burnt district, and many of them lost everything, and are actually dependent for the common necessaries of life.

In addition to money, instruments and other professional appliances will be welcome.

The acceptance of your kind offer is a delicate act upon my part, and under ordinary circumstances would be declined; but, as I before stated, many of our medical brethren have lost everything, and those from whom they obtained their livelihood are in like condition.

Have not yet had an opportunity to communicate with Dr. Davis; but I infer that he has received your letter and is taking action. I shall see him as soon as possible.

With sentiments of the highest esteem,
I am, very gratefully yours,
JOHN H. RAUCH.

The question then arose as to whether any medical organization had been formed for the purpose of receiving the subscriptions, and bearing upon this some discussion arose as to what party or parties the moneys should be sent.

Dr. Shrady stated that he had also received a communication from the Kings County Medical Society which might throw some light upon the question. This was an official report sent him by Dr. Wyckoff, Secretary of the Society, for publication in the Record, and he took the liberty of reading it to the members (see page 406). It appeared from this that the President of that Society had been informed that Dr. De Laskie Miller, of Chicago, was the Chairman of a Local Committee to receive such funds. He suggested that there did not seem to be a doubt that Dr. Miller was the proper person to receive the moneys; but that it was due to Dr. Rauch, as an act of courtesy, to communicate also with him, especially as he had, up to that moment, as far as was known to the contrary, been the only gentleman who had given any direct information concerning the want of the profession in that city. (For later information see page 408.) In regard to the sending of instruments he stated that Messrs. Tiemann & Co. had promised to contribute through their agent in Chicago, and also to forward any old instruments sent to their care by the physicians of this city.

The Sub-committee, Drs. Peaslee, Hamilton, and Hubbard, were asked to use their discretionary powers in the matter.

Dr. Ellsworth Eliot stated that many to whom he applied for subscriptions had expressed a wish that the physicians who had suffered from the devastating fires in Wisconsin and other portions of the Northwest should have their claims to pecuniary aid considered.

This idea was seconded by Drs. Dunster, Messenger, Purdy, and McMillan.

Dr. Eliot, after stating that the medical students of this city had so handsomely subscribed to the general fund that the medical students of these burnt districts be included, offered the following which was adopted:

Resolved, That the committee have also the power to relieve the necessities of the medical profession who

have suffered from the fires in the Northwest, and that the claims of the medical students, who may from the same cause be left destitute, be also considered.

Dr. Dunster suggested that full reports of the doings of the committee should be presented to the profession through the various medical journals, and that such means be devised by them as would be most conducive to increase and centralize the subscriptions which would doubtless be made throughout the country at large.

After a somewhat general discussion upon the subject, the treasurer announced that all the wards with the exception of the First, Second, Fifth, Eleventh, and Seventeenth had been heard from. He also stated that thus far the sum of four thousand seven hundred and thirty-six dollars and seventy-six cents had been subscribed, and would be deposited as cash in the bank ready for transmission.

Letters were received from Drs. Thomas and Loomis, tendering their resignations, and one from Dr. Krackowizer, stating that he would be willing, if sufficient time were allowed him, to see every gentleman in his district.

The committee then adjourned to meet the Saturday following, in the same place at the same time.

Pursuant to a special call, the Medical Society of the County of Kings, N. Y., met at the office of the Board of Health, in the Court-House, October 13th, 1871, for the purpose of considering how they might best serve their medical brethren of Chicago in their sufferings growing out of the late conflagration. It was clearly shown by those present who are familiar with that city as it was before the fire, that the physicians there must necessarily have been sufferers in an eminent degree, since a very large proportion had their offices in the central or burnt district, and must have lost libraries, instruments, and nearly everything except shelter, and perhaps that also. No specific facts respecting the losses were related, partly from the difficulty attending the transmission of news of that kind, and partly because physicians are not of a class which publishes abroad its woes.

A subscription of five hundred dollars was raised on the spot, and three hundred more was guaranteed by the twenty members then present. After some discussion the president was directed to forward the money the following morning, and to appoint a committee of two from each ward of Brooklyn, to bring the subject to the attention of the entire Society. At the next meeting of the Society, four days later, the relief fund was announced to amount to more than one thousand dollars, with several canvassers yet to hear from.

This sum was ordered to be sent to four gentlemen of Chicago, as almoners of the Society, namely, Drs. Moses Gunn, N. S. Davis, W. J. Johnson, and J. W. Freer. It has since that time come to the knowledge of the president that Dr. De Laskie Miller is the chairman of a local committee to whom a few contributions have already found their way for the relief of the immediate necessities of those physicians who have been desolated by these fiery trials.

Correspondence.

THE RELATION OF EPIDIDYMITIS TO URETHRITIS.

To the Editor of the Medical Record.

Sir—In the number of your Journal for Oct. 2d, I notice an abstract of a paper read at the meeting of the British Medical Association in August last, by Mr. Furneaux Jordan, on the Extension of Inflammation from the Epididymis to the Urethra.

The conclusion of Mr. Jordan seems to rest upon the observation of a single case; I had seen a similar instance before his observation came under my notice, and the practical importance of the subject is sufficient reason for giving it immediate publicity.

Case.—Mr. Jacobs consulted me early in September last on account of a swelling of his left testicle. He is a Jew, aged about 40, married, and the father of several children.

About a week before consulting me, he had bruised or compressed his left testicle somewhat severely; it had been getting larger and more painful ever since, and for the last two or three days had become so painful as to compel him to remain in bed.

Upon examination I found this testicle two or three times the size of the other, hard, hot, and very painful and tender; the scrotum over it red and shining. The enlargement was confined mainly to the epididymis, and the spermatic cord was perceptibly enlarged and indurated, and exquisitely sensitive; it was here and shooting up into the groin that he complained of the severest pain. He had also a slight urethral discharge, of a whitish color and creamy consistence, with burning pains in urination; the urethral meatus was not red or swollen. He states that this discharge had only come on during the last few days, and some time after the swelling in the testicle.

He denied ever having had connection with any other woman than his wife, or having intercourse with her during or immediately after her menstrual flow; she had no uterine or vaginal discharge. The discharge from this man's urethra certainly had not the appearance, nor did it run the course of an ordinary clap; it did not become more abundant, nor was the ardor urinæ as great as we generally see in that disease; it subsided in a few days under treatment directed to both the testicle and the urethra. The testicle was enveloped in a poultice of digitalis leaves, and oil of sandal-wood with demulcent drinks administered; as stated above, the urethral discharge disappeared in a few days, when the oil of sandal-wood was omitted, and it did not return. The epididymitis subsided more slowly; after the pain had somewhat diminished mercurial ointment was applied locally with good effect. To be sure I had not the advantage of observing this case before the appearance of the urethral discharge, but I have no doubt of the truthfulness of the patient's statements, and that this was a case of primary inflammation of the epididymis propagated to the urethra through the vas deferens. It seems perfectly reasonable that this propagation should take place in one direction as well as the other, though not as often; and if this be the fact, it is certainly one that ought to be generally known and borne in mind.

J. H. Pooley, M.D.

Yonkers, N. Y.

KENNEDY'S CONCENTRATED EXTRACT OF PINUS CANADENSIS.

To the Editor of the Medical Record.

Sir—Having been requested to state what I know therapeutically of Kennedy's Concentrated Extract of Pinus Canadensis, and furthermore being requested to send it for publication in the columns of your journal, I beg leave *briefly* to tax your patience and generosity.

For the past six months I have used this extract in

many cases affecting the mucous membranes, and in almost every case it has given entire satisfaction. In abrasion of the os and cervix uteri, when applied in its full strength by means of a pledget of cotton, I have found it far more satisfactory than tannin or iodine. In endometritis it has proved equally satisfactory. I have used it with perfect success in acute and chronic vaginitis, by applying it in its full strength every other day. I have also used it in several cases of gonorrhœa, and must say that I vastly prefer it to the vaunted remedy of claret and tannin.

It is certainly a most valuable astringent and tonic; and I doubt not that it will very soon have its place in our Materia Medica.

W. T. Walker, M.D.

121 E. 35th st.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department of the U. S. Army, from October 5, 1871, to October 18, 1871, inclusive.

Mills, M., Surgeon.—By S. O. 395, War Dept. A. G. O., October 9, '71, leave of absence extended thirty days.

Milhau, Jno. J., Surgeon.—By S. O. 212, Dept. of the South, October 7, '71, granted leave of absence for twenty days.

Peters, DeWitt C., Surgeon.—By S. O. 393, War Dep't, A. G. O., Oct. 7, '71, granted leave of absence for thirty days, with permission to apply for an extension of sixty days.

Fryer, B. E., Surgeon.—By S. O. 174, Dep't of the Mo., Sept. 30, '71, granted leave of absence for thirty days, with permission to apply for an extension of thirty days.

Caldwell, D. G., Asst. Surgeon.—By S. O. 214, Dep't of the South, Oct. 12, '71, granted leave of absence for thirty days, with permission to apply for an extension of sixty days.

Loring, L. Y., Assist. Surgeon.—By S. O., 181 Dep't of the Mo., October 9, '71,—upon distribution of Companies of Sixth U. S. Cav'y to winter quarters—to take post at Fort Riley, Kansas.

Patzki, J. H., Asst. Surgeon.—By S. O. 199, Dep't of Texas, October 4, '71, relieved at Fort Richardson, and assigned to duty at Fort Clark, Texas.

Medical Items and News.

Tobacco Smoking.—Dr. E. B. Gray (*Food Journal*, Eng.), in a paper on "The Medical Aspect of Tobacco-smoking," speaks as follows: Tobacco should be used as supplementary to food, not as a substitute for it. The season, therefore, for healthy smoking is after a meal. Tobacco should not be taken on an empty stomach (unless to stave off hunger) any more than alcohol. Smoking merely to kill time, or to color a pipe! is a childish abuse of tobacco. Against moderate smoking in a healthy person who enjoys it, not a single argument of any weight has yet been advanced. Perhaps the most plausible of them is this: that every smoker daily imbibes a small quantity of tobacco-oil and nicotine; and as these substances taken by themselves in the pure concentrated state and in large doses are highly poisonous, therefore every habitual smoker is slowly poisoning himself. Just as reasonable is it to condemn all alcoholic drinks, such as wine, beer, etc., as pernicious, because a draught of pure alcohol will nearly or quite kill a man; or to condemn tea and coffee as dangerous drinks, because their active principles, theine and caffeine, taken alone and in large doses, are poisons. One of the best-established truths in medical science is that the same physiological agent, according to the dose given, may produce effects which differ not merely in degree, but in *kind*. The idea of small doses of tobacco or other such agent slowly accumulating in the system, and at length producing the effect of a single large dose, is *à priori* absurd, and also contradicted by experience.

So much, and often so much nonsense, is prated about the evils of tobacco, that its virtues rarely get a hearing, and yet the latter are many and great. To quiet nervous unrest, to soothe a ruffled temper, to favor calm and impartial thought, to steady and clear (*not* to cloud) a confused over-worked brain, to counteract the effects of physical exhaustion—these are just the things which tobacco does; and if it can effect these ends safely and pleasantly, who shall deny it a place among God's good gifts to men?

A New Ovariotomy Clamp.—Dr. B. F. Dawson, of New York (*Am. Journ. Obstetrics*), has invented a clamp of entirely new action, which he claims is an improvement on the somewhat complicated instrument used by Dr. Washn. L. Atlee, of Philadelphia. The entire instrument, made by G. Tiemann & Co., is so light, compact, and small, that its case may be carried in the vest-pocket without inconvenience. It may be used also in the removal of hemorrhoids, portions of the tongue, penis, scrotum, and extraneous growths.

National Pharmaceutical Association.—At the Nineteenth Annual Meeting of this Association, held in St. Louis, Mo., September 12, 1871, the following officers were elected for the ensuing year:—*President*, Enno Sanders, St. Louis; *Vice-Presidents*, C. Lewis Diel, Louisville, Ky.; G. F. Markoe, Boston; and Matthew Ash, of Jackson, Mississippi; *Treasurer*, Chas. Tult, Dover, N. H.; *Permanent Secretary*, Prof. John M. Maisch, Philadelphia; *Executive Committee*, Thomas S. Weigand, Philadelphia; Wm. H. Crawford, St. Louis; Chas. L. Jefferson, Philadelphia; Chas. H. Dalrymple, Morristown, N. J., and J. M. Maisch, Philadelphia.

Cases of Cataract.—E. L. Holmes, M.D., Prof. of Ophthalmology and Otology in Rush Medical College, Chicago, Ill. (*Chicago Med. Journal*), during the past fourteen years, has examined 8,967 patients affected with diseases of the eye. Of this number, 243 were suffering from some abnormal condition of the lens. Of the forty-six extractions through the modified linear section, six were total failures, and forty with good results. Of the forty successful cases, thirty-two in succession were successful, with scarcely an accident during the operation, or pain after it. Of the six unfortunate cases, two were complicated with extensive posterior synechia, and two with serious sequelæ of conjunctivitis. All these unfavorable results were due to iritis, except one. In a single patient there was a fearful suppurative irido-choroiditis.

Death of a Liverpool Surgeon.—John William Irviue, M.D., L.R.C.S., S.S., a visiting surgeon to West Derby Union Hospital, Liverpool, Eng., recently died at the early age of thirty-three. He contributed several essays: one on "Fever in Liverpool," and another on "Resection of the Clavicle, with Formation of the Entire Bone." When he was stricken down with relapsing fever he was engaged on a paper for the "Liverpool Medical and Surgical Reports" on amputation at hip-joint; that paper being the result of three successful hip-joint amputations, after failure of resection of the knee-joint and disease of the femur.

University of Toronto, Canada West.—Dr. Alleyne Nicholson, late Lecturer on Natural History in the Medical School of Edinburgh, has been elected Professor of Natural History in the University of Toronto.

Incomes.—It is said of Radcliffe, that in 1691, when his fame was so great that everybody flocked to him for advice, his neighbor, Dr. Gibbons, received £1,000 a year—a large sum in relation to the value of money at that period—from the overflow of patients who were not able to get admission to the great Physician of the day. In 1707—seven years before his death—his fortune amounted to £80,000.

The Royal Ophthalmic Hospital in Moorfields, London.—The London correspondent of the *American Practitioner* says, that one of the busiest medical scenes in London is at the Royal Ophthalmic Hospital in Moorfields. Its out-practice especially is enormous. Ninety-five thousand cases are thus treated annually. Besides these about thirteen hundred are received into its eighty beds during the same time. The out-practice is attended to daily from nine to twelve. Patients are formed into lines, and present themselves in turn at one of the four desks at which the surgeons stand. At the first desk stands Mr. Bowman and Soelberg Wells; at the second, Mr. Lawson; at the third, Mr. Cooper and Mr. Adams; and at the fourth, Mr. Critchell. Quite a number of cases of white atrophy of the optic nerve were observed, which Mr. Critchell says occurs nine times out of ten in men, and is oftenest caused by tobacco and drink. In the way of treatment, the changes are rung on atropia, nitrate of silver, and tonics. He saw no sulphate of copper used.

London Ophthalmologists.—Mr. Soelberg Wells, the renowned ophthalmologist, is a large, fine-looking man, with a German cast of countenance. He scarcely shows above forty. His hair is prematurely gray. Besides his position in Moorfields, he is the ophthalmic surgeon at King's Hospital. He retains his surgical title of "Mr.," although he is in addition a "doctor" of Edinburgh.

Mr. Bowman would be mistaken for a clergyman. His manner is singularly gentle, and his features indicative of the greatest goodness. Perpetual good humor will describe Mr. Critchell. He will take any pains to explain a case, whether one or many are listening. His illustrations are frequently in anecdote, and almost always quaint. Mr. Critchell uses Noyes's speculum in operations. Mr. Bowman alone brings together the remains of the muscles with ligature after an extirpation.

Hemorrhoids.—Sir Henry Thompson still favors the ligature in internal pile. Mr. Heath secures it with Smith's clamp, cuts and applies the cautery.

Duchenne's Paralysis.—Prof. F. T. Miles, of Baltimore, Md. (*Balt. Med. Journal*), at a late meeting of the Medical and Chirurgical Faculty of Maryland, exhibited three beautifully marked cases of Duchenne's paralysis, with interesting remarks upon the subject.

St. Michael's Hospital, Newark, N. J.—The new building situated on the corner of High and Nesbit streets, Newark, N. J., can accommodate two hundred patients. The *Attending Physicians* are:—Drs. William O'Gorman, Isaac A. Nichols, James Elliott, A. W. Woodhull, Fridolin Ill, Anthon Zehnder, Charles M. Zeh, Charles Young, J. A. Cross, James Vanderpool. *Out-Door Department—Clinic for Diseases of Eye and Ear*, Charles Kipp, M.D.; *Clinic for Diseases of Throat and Chest*, Edgar Holden, M.D.; *House Physician*, George Swain, M.D.

The Medical Relief Committee of Chicago.—Just as we go to press we receive the following:—

At a meeting of physicians held on the 17th instant, at No. 797 Wabash avenue, of which Dr. N. S. Davis was made chairman, and Dr. E. Andrews, secretary, the announcement having been made that communications had been received from prominent physicians of other cities, to the effect that contributions, for the relief of the suffering members of the profession here, are now awaiting the order of responsible parties to receive and disburse them. Drs. Moses Gunn, E. Andrews, and A. Fisher having been appointed a committee to recommend suitable persons for a permanent relief committee of five, nominated the following gentlemen: Drs. N. S. Davis, DeLaskie Miller, Ernst Schmidt, T. D. Fitch, and Walter Hay, which nominations being unanimously approved, the following resolutions were adopted:

Resolved, That the committee just chosen is hereby authorized to receive all donations for the relief of the respectable physicians who are sufferers by the late fire, distribute the same at their discretion, and render a strict account, with vouchers, to any future meeting, which may be called by the chairman, to consider the same.

Resolved, That this meeting tender the cordial and heartfelt thanks of the profession of this city to their brethren in other and distant cities, for the prompt and liberal offers of assistance to the many among us who have lost, by the late terrible fire, not only their homes, clothes, books, and instruments, but their practice, and pledge a just use of whatever is given.

Contributions may be forwarded at once by express, or draft on New York, to Walter Hay, M.D., Secretary Medical Relief Committee, No. 384 Michigan avenue.

Donations from publishing houses, instrument-makers, and physicians, of books, instruments, or apparatus, will be gratefully received, as many of our professional brethren have saved only their lives.

Committee.
De Laskie Miller, M.D.,
No. 518 Wabash avenue, Chairman.
N. S. Davis, M.D.,
No. 797 Wabash avenue, Treasurer.
Ernst Schmidt, M.D.,
No. 387 State street.
T. D. Fitch, M.D.,
No. 296 West Monroe street.
Walter Hay, M.D.,
No. 384 Michigan avenue, Secretary.

The Late Professor Gunning S. Bedford, M.D., was the first professor who ever held in the United States an obstetrical clinic. It is estimated that annually 10,000 poor patients gratuitously received medical treatment at his hands.

Board of Examining Surgeons for Pensions, N. Y. City.—The Board is composed of the following gentlemen:—*Surgeons*—James F. Ferguson, M.D., *President*; Charles Phelps, M.D., Passmore Treadwell, M.D., M. K. Hogan, M.D.; William O'Meagher, M.D., *Secretary and Treasurer*.

Ceylon a Quinine Producing Country.—From information gained through private and reliable sources, Ceylon gives fair promise to take rank, at no very distant day, as one of the chief quinine producing countries in the world. A pound of this bark contained of sulphate of quinine 289 grains, of quinidine 47 grains, and of alkaline cinchonine 14 grains. An ounce of sulphate of quinine was obtained from one pound eight ounces and a quarter of the bark.

Original Communications.

CHOREA IN CHILDREN.*

By J. LEWIS SMITH, M.D.,
NEW YORK.

Chorea, or St. Vitus', or St. Guy's dance, is a nervous affection, which is characterized by irregular and involuntary muscular movements, without loss of consciousness. The movements occur in the muscles of volition, and there is probably no one of them that may not be engaged, though some are more frequently affected than others. It is not known that any involuntary muscle is ever involved, though Sir William Jenner has expressed the opinion that occasionally the papillary muscles of the heart are, so that, by their spasmodic contractions, they produce insufficiency of the mitral valve. This, according to him, affords explanation of the fact that, in certain instances, a mitral regurgitant murmur is heard, which disappears about the time that the external movements cease. It is rare, however, that a mitral regurgitant murmur, heard during chorea, ceases when the latter terminates, and it is not improbable that in such cases there is, after all, a lesion of the valve due to recent endocarditis, whether of a rheumatic or other origin. For a valve may be so thickened by recent inflammation as to cause a murmur, and, after a few weeks or months, the infiltrating substance be so absorbed that the murmur is no longer audible. If we admit the fact that cardiac bruits occasionally appear and disappear with chorea, this explanation seems to me more plausible than that of Jenner. Hillier says, in reference to this subject: "My own experience leads me to doubt the existence of dynamic apex murmurs in chorea, that is to say, murmurs produced in hearts entirely free from organic change. If such murmurs ever occur, they are certainly rare. Organic murmurs of the heart, on the other hand, are common in chorea, and I am inclined to believe that organic disease of the heart often exists in chorea when there is no murmur." Hillier also calls attention to the fact that choreic movements are irregular; but a cardiac bruit occurring regularly and uniformly, if not due to organic disease, would require rhythmical contractions of the papillary muscles to produce it.

Age.—Chorea may occur at any period of life; but while it is comparatively rare at other ages, it is not infrequent in childhood. A large majority of cases are between the fifth year and puberty. Under the age of five years, the proportionate number diminishes as we approach the time of birth, and it is rarely observed in infants under one year. The youngest in the statistics of Hillier was three months.

In 1870, at the Out-Door Department of Bellevue, a child was presented for treatment, who, the mother stated, had had chorea from birth. The choreic movements were no doubt observed very early in infancy, though probably the disease was not congenital. The following table exhibits the relative frequency of chorea at different ages during infancy and childhood:—

	6 YEARS AND UNDER.	6 YRS. TO 10.	10 TO 15 YRS.
Children's Hosp., Lond., Hillier	81	237	104†
M. Rufz	10	61	118
Out-door Department, † Bellevue	2	26	16

M. Sée collected the statistics of 531 cases occurring in the Children's Hospital, Paris, and from them concludes that the maximum frequency of chorea is between the sixth and tenth year. Only twenty-eight of his cases were under six years, the remainder, 503, occurring between the sixth year and puberty.

Causes.—The profession are nearly agreed in regard to certain causes of chorea, while there is a diversity of opinions in reference to others. It is admitted that in a large proportion of cases there is a neuropathic state, which antedates and predisposes to chorea. This state is often manifested in the family history by a proneness to affections of the nervous system, and in the individual by a highly excitable state of the emotions, so that he evinces joy, grief, or anger, from slight causes.

All writers admit that there is often an inherited predisposition to chorea. In 27 of 48 cases of chorea, Radcliffe found that father, mother, brother, or sister had been or was the subject of one or other of the following disorders—paralysis, epilepsy, apoplexy, hysteria, or insanity. The children of parents who when young had chorea, or who exhibit a proneness to neuropathic ailments, are more liable to chorea than other children. Hence the fact sometimes observed, of different children in the same family becoming affected with chorea when they attain the age at which this disease ordinarily occurs. In one family, in my practice, three girls, at different times, were affected.

Sex.—The emotions are strong in girls, since in them the nervous system predominates, while the muscular power is weaker than in boys. Hence a partial explanation of the fact which statistics fully establish, that the proportion of choreic boys to girls is about in the ratio of one to two and a fraction. I have remarked, in this city, the large proportion of cases in school-girls between the ages of six and twelve years; the severe discipline and confinement of the public schools no doubt increasing the strength of the emotions, and weakening the control of the will over the muscles.

Proportion of Males to Females.

27 to	73.	Hughes' Digest of Cases in Guy's Hosp., 1846.
138 to	393.	M. Sée.
25 to	40.	Out-door Department, Bellevue.
276 to	499.	Children's Hosp., Lond. West (*Lumleian Lect.*).

466 to 1,005=1 to 2.15.

Uterine Irritation.—The peculiar changes occurring in the female at puberty constitute an important cause. Hence another reason of the excess of female cases. Dysmenorrhœa and pregnancy are causes of a large proportion of cases in the first years of puberty. In the male, on the other hand, the changes of puberty do not appear to increase the liability to the disease, directly or indirectly, and male cases, after the age of twelve years, are comparatively rare. Radcliffe states (*Reynolds' System of Med.*) that after the ninth year, females are more liable to chorea than males, in the proportion of 5 to 2; while, before the ninth year, the two sexes are equally liable to it. Carefully prepared statistics, however, notwithstanding the high authority of Radcliffe, show a preponderance of girls under the age of nine years, though not as great as over that age. In the Out-door Department at Bellevue, of 35 patients under the age of ten years, 22 were girls, while of 20 from the age of ten years to sixteen, 15 were girls.

According to West (*Lumleian Lect.*), in 775 children with chorea, under the age of ten years, treated in the Lond. Children's Hosp., 64 per cent. were girls.

Anæmia.—Among the most common predisposing causes of chorea is anæmia. It is present in so large a

* Read before the Medical Library and Journal Association of New York, October 27, 1871.

† None over 12 years admitted.

proportion of cases, exhibiting itself by pallor of the countenance and other characteristic signs, that medicines designed to improve the quality of the blood are among the most valued remedies. The peculiar neuropathic state already alluded to, which needs only a slight additional cause for the development of chorea, is, no doubt, largely dependent on impoverishment of the blood, if it is not sometimes due entirely to it. Among the poor of a large city like New York, or in hospital practice, the proportion of anæmic cases of chorea is, for obvious reasons, much larger than would appear from general statistics.

Rheumatism.—Dr. Copland, M. Bouteille, and afterward M. Germain Sée, in a more extended monograph, directed the attention of the profession to rheumatism as a cause of chorea. Subsequent observations have established the fact that rheumatism, or the rheumatic diathesis, is so frequently present that it obviously sustains an important relation to chorea, though in what manner is not fully ascertained. This relation between the two is more frequently observed in some countries than in others. In England and France, so large a proportion of choreic patients present the history of rheumatism either in themselves or family, that certain physicians of these countries believe that rheumatism is the most common cause of the disease. In Germany, on the other hand, according to Romberg, in the majority of cases no relation can be traced between chorea and rheumatism, and the statistics of this city, and I think of this country, correspond with those in Germany.

Various theories have been promulgated in explanation of the relationship of the rheumatic and choreic diseases. It has been suggested that chorea is due to rheumatism of the brain or spinal cord. This is simply a hypothesis, the truth or falsity of which can only be ascertained by carefully conducted necropsies; but the theory appears improbable in view of all the facts. Another theory attributes chorea to the state of the blood which is present in those having rheumatism or the rheumatic diathesis, as well as in certain other conditions. This theory is enunciated by Dr. Ogle, as follows:—"Recognizing the frequent existence of these fibrinous deposits or granulations on the heart's valves in chorea, I should be much inclined to look upon these post-mortem appearances rather as results of some antecedent general condition of the blood, common also to the choreic condition. It is very freely recognized that this affection is frequently, in some way or other, connected with that condition of blood which obtains in what we call anæmia, or that existing in rheumatic constitutions. In both of these states we know that the fibrine of the blood is much in excess (as also it is in pregnancy, another condition looked upon as obnoxious to chorea); and in these states we know that the fibrine with which the blood is surcharged is very prone to be readily precipitated, either owing to its superabundance, or from other obscure and acquired properties * * upon the heart's walls or valves. May not this hyperinosis be the explanation of the coincidence alluded to" (*British and Foreign Med. Chir. Rev.*, January, 1868)—namely, the occurrence of chorea in those affected with rheumatism. Others still hold that chorea is the result of the heart-disease, and not directly of rheumatism, occurring when the heart is affected from other causes, as well as when the lesion has a rheumatic origin. This theory is plausible, and probably to a certain extent correct. Heart lesions, observed in children, result from scarlet fever in a considerable proportion of cases, though, it is true, the endocarditis and pericarditis of scarlet fever are believed often to have a rheumatic origin, occurring, in some instances, from scarlatinous rheumatism, but, in other cases, from scarlatinous uræmia. Occasionally also the heart-disease appears to have occurred independently of both rheumatism and scarlet fever. Thus, in a fatal case of chorea with valvular disease, related to the Lond. Path. Soc., April 6, 1869, the child was always healthy up to the present illness (chorea), and there was no history of rheumatism in the family. The more observations accumulate, the more important does heart-disease in itself appear as a cause of chorea. In nearly all recorded cases of fatal chorea, which were supposed to be due to rheumatism, and in which post-mortem examinations were made, vegetations have been discovered upon the valves—aortic or mitral. We shall see that certain eccentric causes of irritation aid in producing chorea, and may not the valvular disease, or the endocarditis which causes the valvular lesion, operate in a similar manner as a cause? We know that in the adult severe cardiac disease often profoundly affects the nervous system, perhaps in consequence of the irregular and embarrassed circulation; and certainly in the child a similar cause would be likely to produce a more decided effect.

But there is an ingenious theory, which attributes chorea to minute emboli detached from vegetations on the valves, and arrested by capillaries in the corpora striata, or other portion of the cerebro-spinal axis. Since attention was directed to this matter, emboli have been found in one case in the medulla oblongata, although this portion of the spinal axis appeared healthy to the naked eye. Further observations are necessary in order to determine how much truth there is in this theory; but it seems probable, for reasons to be stated, that if capillary embolism does cause chorea, it is only in a limited number of cases, and that therefore those British observers who regard it as the common cause, have been led into error by the large proportion of choreic cases which are complicated by valvular lesions in their climate.

That embolism is not a common cause, if indeed a cause at all, appears probable from the following facts: First. In many cases of chorea there are no vegetations, or other appreciable lesion, which could give rise to emboli. Secondly. Most patients recover, and some speedily, by treatment, which we would not expect if the cause were embolism. Thirdly. Embolism is not infrequent in the cerebral vessels of the adult, without the occurrence of chorea. Indeed, the conditions which produce embolism are much more common in adults than in children, while the reverse is true as regards the liability to chorea. Fourthly. Dogs sometimes have chorea, but the injection of minutely divided fibrine or other substance in the veins of the dog is not followed by chorea as one of the phenomena. Fifthly. Were capillary emboli the cause, we would expect to find an occasional embolus in the larger vessels of the brain, so as to be appreciable to the naked eye; but I find no examples of this in all the recorded autopsies which I have been able to consult. Moreover, it seems improbable that capillary embolism, when producing no lesion appreciable to the naked eye, would so arrest the circulation, and disturb the function of the brain or spinal cord, as to cause chorea, for the ill effects of such an obstruction would be likely to be obviated by the numerous anastomoses.

It is obviously better, in the present state of uncertainty regarding the exact relation of rheumatism and valvular disease to chorea, to postpone the acceptance of any theory till the minute anatomy of chorea has been as fully investigated as has its clinical history.

Fright.—A not infrequent exciting cause of chorea is sudden and profound emotion, especially fright. All statistics give fright as the cause of a certain propor-

tion of cases, though there are usually other potential co-operating causes, as anæmia or valvular disease. Fright was stated as the cause of chorea in 31 of the 100 cases occurring in Guy's Hospital, reported by Hughes, or in nearly one in three. But the statistics of other observers do not give so large a proportion of cases originating in this way. Chorea may commence within a few hours after the fright, or not till the lapse of several days (eight or ten). If several weeks have passed since the fright, as in some reported cases, the chorea is probably due to other causes. In rare instances, chorea is said to have been caused by sudden and excessive joy.

Imitation.—Under unusual circumstances, especially in a state of great mental excitement, imitation has been known to cause a form of chorea. Hecker describes an epidemic of it, occurring in the middle ages, and spreading through villages. In modern times, it is rare that chorea originates from this cause, nevertheless occasional examples have been recorded.

But the disease which occurs from imitation differs from the ordinary form, and has been termed chorea major; while chorea proper, which is the subject of this article, is sometimes designated, in contradistinction, chorea minor.

In chorea major, the patient leaps, dances, or whirls like a top. It has its origin commonly in religious excitement, and spreads by imitation almost in the manner of an infectious disease. The epidemic of the Middle Ages was a chorea major .I have not been able to find any account of cases spreading by imitation, in modern times, which were not examples of the same form of chorea. Thus in the *Edin. Journ. of Med. and Surg.*, for July, 1839, there is a clear description of chorea major, occurring successively in five children in the same family. Dr. Dewar, the attending physician, states that one of the children whom he was called to see was sitting near the fire-place, when her head dropped on her chest, and she appeared to doze some minutes. In the mean time the respiration became a little accelerated, the face altered and flushed, the eyes wild. In less than one minute she bounded from one extremity of the apartment to the other, leaping over chairs, a chest, and then throwing herself upon the floor; she attempted to stand upon her head, rolled upon the floor, and then, rising, ran with extreme swiftness in the room, till she finally fell again on the floor, where she remained motionless some minutes. Then, recovering, she noticed those who surrounded her, and asked of her sister a toy, which she had allowed to fall. The whole paroxysm lasted twenty minutes.

Obviously, the symptoms of chorea major differ materially from those of chorea proper, and it is a question whether it should have the same generic name. It is a curious and interesting disease in its psychical and pathological aspects, but it is so rare in modern times that a knowledge of it is of little practical importance.

Intestinal Irritation.—In rare instances intestinal worms cause chorea, though in these cases there have usually been some co-operating causes. The following is an example, related by Mr. Ogle (*Lond. Medico-Chir. Rev.*, Jan., 1868): Ellen L., 9 years old, had been under treatment about a month with chorea, rheumatism, and worms. She had not slept in four days, and there was constant spasmodic movement of the body and face. Her general condition was very unpromising. As she had passed portions of a tape-worm at intervals during the last three months, one drachm of the oleum filicis maris was administered in mucilage, which caused the expulsion of the entire worm. From that time she fully and rapidly recovered from the chorea, though a mitral murmur remained.

Lesions of Brain and Spinal Cord.—Nearly all standard authors who reject embolism as a cause of chorea, believe that there is no anatomical cause of the disease located in the cerebro-spinal axis. In other words, they regard chorea as one of the neuroses. This view is probably, in the main, correct; but experiments, and also occasional cases, establish the fact that if not true chorea, at least choreiform movements, now and then, result from a structural affection of the nervous centres.

Experiments on certain of the lower animals demonstrate that irregular muscular movements may be produced by traumatic injury of certain portions of the cerebro-spinal axis, as the corpora quadrigemina, crura cerebri, pons Varolii, crura cerebelli, thalami optici, parts of the medulla oblongata, and the upper portion of the spinal cord. Pressure on the projecting part of the medulla oblongata of an acephalous monster also causes convulsive movements. At the meeting of the N. Y. Acad. of Medicine, April 20, 1871, Prof. Post related the case of a child who was struck with a billet of wood over the occiput, and chorea followed, due, in all probability, to the injury of the brain which resulted.

If irregular muscular movements, choreic or choreiform, result from traumatic injury of certain portions of the nervous centres, may they not also occasionally occur from lesions of the same parts produced by disease? Sir Benj. Brodie relates the case of a choreic girl, dying in St. George's Hospital (*Lond. Lanc.*, Dec. 19, 1840), in whom, after a careful post-mortem examination, the only morbid appearance observed was a tumor the size of a hazel-nut, connected with the pineal gland. Dr. Broadbent described another case before the Lond. Path. Soc. (Vol. xiii., page 246 *Transactions*), in which a tumor was found arising from the centre of the spinal cord; and Chambers one in which tubercles were imbedded in the cord. Romberg quotes from Frerichs a case in which the medulla oblongata was pressed upon by an enlarged odontoid process; and Dr. Aitken (*Glasgow Med. Journ.*, vol. i.) one in which the specific gravity of the thalamus opticus and corpus striatum was greater on one side than on the other. Rilliet and Barthez relate other similar cases, and add: "We may conclude, from these different cases, that there exist two species of chorea: the one essentially a simple neurosis, while the other depends on an alteration of the encephalo-rachidian system. In a word, it is of chorea as of convulsions, that it is sometimes idiopathic, sometimes symptomatic." Still, the cases in which it is symptomatic are so few that it is proper to consider chorea as it ordinarily occurs, one of the neuroses until the microscope detects some anatomical cause in the cerebro spinal system of which we are now ignorant.

Anatomical Characters.—So far as ascertained, chorea has no certain anatomical characters. As we have seen, lesions are sometimes present which probably sustain a causative relation to the disordered muscular action, and others are sometimes observed which are neither a cause nor result, their presence being a coincidence. But there are two lesions which, though often absent, have been observed in so large a proportion of fatal cases that they are justly regarded as an occasional result when chorea is severe. Dr. Hughes, of London, collected records of the post-mortem appearances of 14 cases, with the following result as regards the cerebro-spinal axis: Brain, 14 cases: healthy, 4 cases; only congested, 3 cases; softened in part or entirely, 6 cases (some of these also congested). In

some of these cases those occasional results of congestion, namely, transudation of serum and extravasation of blood, in greater or less quantity, were also observed. Spinal cord: healthy, 3 cases; congested, 2 cases (one slightly, in the other the engorged vessels were large and numerous); softening in medulla oblongata, 1 case; softening opposite fourth and fifth vertebra, 12 cases. In one there were soft, in another firm adhesion of the spinal meninges, and in one it is stated that the rachidian fluid was opaque. Of sixteen fatal cases of chorea occurring in St. George's Hospital, "congestion (more or less complete) of the nervous centres (brain or spinal cord or both) was met with in six cases." There was softening of certain parts of the brain in one case, and of the spinal cord in another (Ogle, *Brit. and For. Medico-Chir. Rev.*, Jan., 1868). Other statistics of the anatomical character of fatal chorea correspond, in the main, with those of Hughes and Ogle. These lesions are probably not present in ordinary cases, occurring only when the choreic movements are so severe that the patient is deprived of needed repose, and the important functions of the economy, as the circulation and nutrition, are seriously disturbed.

The post-mortem examination of other parts besides the cerebro-spinal axis furnishes a negative result, if we except such affections as have been ascertained to act as causes of chorea. What portion of the nervous centre is chiefly involved in chorea is uncertain. Some, as Sir Benj. C. Brodie (Lond. *Lancet*, Dec. 19, 1840), consider chorea a disease of the nervous system generally, while others have attributed it to disease or disorder of a certain part, as the corpus striatum, cerebellum, etc. Finally, it is stated that, in late experiments on choreic dogs, the movements do not cease when the spinal cord is severed from the brain, nor also on division of the posterior roots of the spinal nerves (Legros et Onimus, *Rech. sur les mouvements choreiformes du chien*, Acad. des Sci., 9 Mai, 1870, *Lyons Med. Jour.*, June 5, 1870). In these cases, therefore, the part of the axis which is in fault would appear to be solely the spinal cord.

Symptoms.—Chorea is partial or general. It is partial when it affects a few muscles, or groups of muscles, as those of one arm, the face or neck, or of one eye. It is designated general, when all the limbs, and certain of the muscles of the face and trunk, are involved. Statistics show that partial chorea occurs more frequently on the left than on the right side, and in general chorea the movements on the left side are apt to predominate. The commencement is usually gradual. Even when finally chorea becomes general, certain muscles only are affected in the commencement in ordinary cases. The child in whom this disease is about to begin is observed to be fretful and impatient from slight causes, and the irregular muscular action at first is apt to be misunderstood by the parents, who reprimand him for his supposed fidgety habit. In exceptional instances, especially when the cause is a sudden and profound emotion, the commencement is abrupt, and the disease is severe and general from the first.

In a majority of cases the muscles which are primarily affected are those of the face, neck, fingers, or hand on the left side. Sydenham erred, unless the clinical history of chorea has changed during the last two centuries, when he stated as the common fact that a tottering gait is its first manifestation; but now and then such a case does occur. Wherever the choreic movements first appear, other muscles are soon involved, so that in the course of a few weeks, sometimes of a few days, all the muscles that participate are engaged.

A muscle affected by chorea alternately contracts and relaxes, but less forcibly and rapidly than in eclampsia, and the movement is partly controlled by volition. This produces an unsteady and tremulous action of the part, whether a limb, the neck, or face; which at once arrests attention, and indicates the nature of the disease. The result is similar as regards the muscular action, whether the patient will's a movement, or attempts to control those which chorea produces.

If the case is of ordinary severity, the movements continue with but momentary intermissions, except during sleep, when they ordinarily cease. In grave cases patients are often deprived of the proper amount of sleep in consequence of the severity and persistence of the muscular action, and in exceptional instances, especially when the result is fatal, the movements continue in sleep, but the sleep is not sound, and is frequently interrupted. In profound sleep, the muscles are probably always in repose.

The older writers have left us graphic descriptions of those diseases which have striking external manifestations, though often with somewhat of exaggeration. Sydenham says of chorea: "The patient cannot keep it (his hand) a moment in the same place; whether he lay it upon his breast, or any other part of the body, do what he may, it will be jerked elsewhere convulsively. If any vessel filled with drink be put into his hand, before it reaches his mouth, he will exhibit a thousand gesticulations, like a mountebank. He holds the cup out straight, as if to move it to his mouth, but has his hand carried elsewhere by sudden jerks. Then perhaps he contrives to bring it to his mouth, and if so he will drink the liquid off at a gulp, just as if he were trying to amuse the spectators by his antics!"

In severe general chorea a similar description is applicable to the movements of the legs and features. Grimaces and distortions of the features occur, while the gait is halting and unsteady, or it is impossible to walk, and the patient lies or sits. The speech is slow, thick, and indistinct in consequence of the muscles of the tongue and larynx becoming engaged, and even mastication and deglutition are rendered difficult. The imperfect speech in chorea is attributed partly, however, to the impairment of the mental faculties. Chorea, except in mild cases, is accompanied by other symptoms referrible to the nervous system. More or or less impairment of the mental faculties occurs in severe and protracted chorea, exhibiting itself in dulness or apathy. The countenance sometimes presents in aggravated cases almost the appearance of idiocy. The muscles, instead of becoming hypertrophied, and more powerful by their frequent contraction, grow softer, more flabby, and weaker. Indeed, a partial paralysis sometimes results, so that a degree of numbness is experienced in the affected part, and the limb when raised cannot be sustained. Pain is not a symptom of chorea, but fugitive rheumatic or neuralgic pains are sometimes experienced. Derangement of the digestive function, exhibited by a poor or capricious appetite, constipation, etc., are common.

The urine of choreic patients has been examined by Drs. Walsh, Ford, Bence Jones, Hanfield Jones, Radcliffe, and others, and its elements have been found in most cases to vary from their normal quantity. Dr. Hanfield Jones read a paper before the Clinical Society of London, in 1871 (*London Lancet*, July 1871), on two cases of chorea in which he had made careful chemical analysis of the urine, with the following result:—During the height of the disease the amount of the urine was much in excess of what it was when the disease had ceased; the amount of urea excreted during the choreic period was enormous; the amount of phosphoric acid excreted when the choreic symptoms were at their maximum was excessive, but the quantity was less

than the average during convalescence; a moderate amount of uric acid during the disease, but none upon recovery.

Prognosis; Course.—Chorea, though obstinate and often incurable in adults, usually terminates favorably in children in three or four months. Bouchut considers its ordinary duration at from thirty to fifty days, which is certainly shorter than the average duration in this country, except as the disease is materially abridged by treatment. The same author states that it may continue only twenty-four hours, or some days, as he has observed in the convalescence from scarlet fever. But tremulousness of the muscles occurring in the state of weakness following a grave disease, and abating as the general health is restored, I should not consider as properly choreic, any more than that occurring from over-fatigue. As the choreic movements gradually increase in the initial period till a certain maximum is reached, so their decline is gradual. There are temporary variations also throughout the disease as regards the extent of the movement, which are aggravated by mental excitement, bodily fatigue, certain functional derangements, especially of digestion, and sometimes from causes which are not apparent.

Though, as a rule, chorea in children ordinarily terminates favorably under different, and even injurious, modes of treatment, there are exceptional cases. Romberg relates the history of a patient who died at the age of seventy-six years, having had chorea since the age of six years. In chorea limited to a few muscles, or a group of muscles, the prognosis is more doubtful than when it affects a large number, since in the former case the cause is more apt to be some lesion of the cerebro-spinal axis. Thus chorea involving only certain muscles of the neck or of the eyes, is sometimes due to this cause, and is then very obstinate.

Again, observations demonstrate that chorea, when at first in all probability strictly a neurosis, but of a protracted and grave character, may give rise to a central organic disease. This is the course of most of the fatal cases, congestion, softening, or other lesion occurring over a greater or less extent of the nervous centres. Radcliffe has known cerebral meningitis to supervene in two instances. With the occurrence of a lesion of the cerebro-spinal axis, new symptoms arise, such as headache, convulsions, delirium, and paralysis, and the choreic movements cease or continue according to the nature of the lesion.

Chorea, like certain other diseases, either of a nervous character, or having a nervous element, is more or less modified by intercurrent inflammatory and febrile affections. The oft-quoted expression from Hippocrates, *febris accedens solvit spasmos*, observations show to be founded in fact, the most frequent example of which occurs in pertussis. In chorea the movements, as a rule, are either rendered milder, or they cease as long as the febrile excitement continues; but there are exceptions, and the subsequent course of the disease is not modified.

Diagnosis.—This is not difficult in ordinary cases. The irregular movements, with consciousness preserved, enable us to make a diagnosis at sight. In its commencement, and when it continues in an unusually mild form, chorea might be overlooked by the physician as it often is by the parents, the movements being attributed to a fidgety habit; but medical advice is seldom sought till the movements are so pronounced that it is impossible to err, except through gross ignorance or carelessness.

It is important to determine when chorea merges in an organic disease, and also whether there is a local cause of the chorea. A careful and intelligent study of the symptoms and history of the case are requisite in order to a correct diagnosis in these particulars.

Treatment—Regiminal.—As chorea in a large proportion of cases occurs in a state of anæmia, and the vital forces are ordinarily more or less reduced, obviously the regimen should be such as invigorates the system. Fresh air and out-door exercise, active or passive, according to circumstances, with the avoidance of undue excitement, are requisite; and the diet should be nutritious, but plain and unirritating. The various functions should be preserved so far as possible in their normal state. In exceptional instances, when the choreic movements are violent, the patient should lie in bed, and the muscular action, if so constant and excessive as to deprive him of the requisite sleep, should be restrained by light and well-padded splints.

Medicinal.—Sometimes, among the co-operating causes is one of a local nature, which is susceptible of removal, as a carious and painful tooth, intestinal worms, etc., and measures calculated to effect this are obviously required. Allusion has already been made to a case in which the employment of the oleum filicis maris, and expulsion of a tape-worm effected a speedy cure.

The remedy which has been most employed in chorea, and which in consequence of the anæmia is plainly indicated in a large proportion of cases, is iron. It does not interfere with the employment of other remedies which have a more specific effect. Nearly all the ferruginous preparations have been prescribed in different cases with benefit. Radcliffe, who justly ranks as one of the first authorities in nervous diseases, gives the preference to the iodide of iron, believing, that iodine, as well as iron, exerts a curative influence. I have of late inclined to the use of the ammonio-citrate, as it is easy of administration in simple syrup, and is well tolerated.

Arsenic, highly extolled by Romberg and others, is a remedy of undoubted value. It is conveniently given in Fowler's solution. It should be administered in doses of three to five drops three times daily, after the meals, as in the treatment of cutaneous or other affections. Radcliffe has administered by subcutaneous injection Fowler's solution, diluted with an equal quantity of water, in a few cases of obstinate local chorea, with a satisfactory result. An adult with choreic movements in one side of the neck of nine years' duration was nearly cured by fourteen injections, employed at intervals of a few days, the quantity employed being increased gradually from three to fourteen minims of the solution. Another remedy of undoubted value is strychnia. Trousseau, who prescribed it in most cases, and highly extolled it, employed the following formula:—

℞ Strychniæ sulphat..... ...gr. i.
Syr. simplic..... ℥ iiss. Misce.

A child of the ordinary age, say ten years, takes at first a teaspoonful twice or three times daily, at uniform intervals, and the dose is gradually and cautiously increased until it begins to produce physiological effects. Strychnia, when employed to the extent of causing some rigidity, is more efficient as a remedy, but smaller doses have been found useful.

Prof. Hammond (*Diseases of Nervous System*, page 617) says: "My main reliance is on strychnia, which, I think, should be given in gradually increasing doses, somewhat after the manner recommended by Trousseau. * * This plan of treatment certainly shortens the duration of the disease very materially, and causes great improvement in the general health of the patient. Sometimes the effect is so well marked, and is so im-

mediate, that it is not necessary to increase the doses to the extent of causing muscular cramps, but generally the full therapeutical effect of the drug is not obtained till the calf of the leg or the nucha has slight tonic spasm. I have never seen the slightest ill-consequence follow this mode of treatment, and the doses are increased so gradually that, with careful watching danger need not be apprehended." Dr. Hammond has treated thirty-two children with this agent without a single failure.

But as chorea terminates favorably with smaller and safe doses, even if the time required is longer, it does not seem proper to recommend its employment to the extent of producing physiological effects for general practice. Bouchut, speaking upon this point, says: "But, with these precautions, strychnia is extremely dangerous, for I have seen, at the Hôpital des Enfants Malades, a young girl of thirteen years die in tetanus," produced by an increased dose of this drug (Article on Chorea). Dr. West, in his Lumleian lectures, also says: "I have seen one instance in which its employment, while it failed to benefit a somewhat severe case of chorea, was followed by two attacks of violent tetanic convulsions which nearly proved fatal," and he adds, "the twitching of the limbs of itself prevents our becoming aware of the dose being excessive, and a child's inability to describe its sensations deprives us of another sign." For such reasons, Dr. West does not favor the employment of this agent. Still, any agent may be given in an overdose, and it is not difficult to prescribe strychnia in a dose which will be efficient, and yet safe for children at the age at which chorea ordinarily occurs. I have employed bromide of potassium in a few cases, but with so little benefit that I am not inclined to continue its use for this disease. Others have not been more successful. However efficacious the bromide may be in epilepsy, it does not appear to be a remedy for chorea.

Cimicifuga, first employed by Jesse Young, of this country, is highly esteemed by Philadelphia physicians in the treatment of chorea. I have employed the fluid extract in doses of half a drachm, increased to one drachm, for a child from six to ten years of age, and though it benefits some cases, it has no appreciable effect either in moderating the movements or abridging the duration of others.

Ether, assafœtida, valerian, musk, the oxide and sulphide of zinc, turpentine, tartar emetic, opium, and numerous other remedies have been recommended, and some of them have seemed useful in certain cases. In this city sulphate of zinc has been frequently employed as a remedy for chorea, and in gradually increasing doses till more than twenty grains were administered three times daily; but it has not appeared, so far as I have been able to ascertain, to exert any marked influence either on the severity or duration of the choreic movements. Justice, however, requires us to state that Dr. West, who has written most recently on the nervous disorders of children, thinks that it has been beneficial in certain cases in which he has employed it, and regards it on the whole as the best remedy.

Radcliffe, who has had ample experience in the treatment of nervous affections, writes: "In an ordinary case of chorea the plan of treatment which I have now adopted as a rule for some time is to give cod-liver oil, in conjunction with hypophosphite of soda, making the draught containing the latter salt the vehicle for the administration of the cod-liver oil." Sometimes camphor or the sesqui-carbonate of ammonia is added. Of more than thirty cases treated in this way, the average duration was under three weeks. Radcliffe began to prescribe these remedies on theoretical grounds, believing that phosphorus and cod-liver oil were required to restore "nerve tone," and the result of this treatment has certainly been such as to commend it to the profession. To children he gives from five to eight grains of the hypophosphite of soda three times daily.

In those severe cases in which the choreic movements prevent the proper amount of sleep, a moderate dose of hydrate of chloral may occasionally be advantageously administered.

Electricity has been many times employed in the treatment of chorea, and though some, chiefly electricians, believe that it has a curative effect, others, and the majority, fail to see any material benefit from its use.

Cold general baths, the shower-bath, frictions along the spine, etc., have been employed; but the local treatment, which has so far been most successful, and which promises to supersede all others, consists in the application of ether spray over the spine. About two ounces of ether are employed at each sitting, the spray being applied from an atomizer up and down the whole length of the spine if the chorea is general. The operation, which occupies from ten to fifteen minutes, should be repeated daily or every second day. Although this mode of treatment is quite recent, a considerable number of cases have already been reported, in which the spray has apparently had a very decided effect in controlling the disease.

THE MICROSCOPICAL CHARACTERS OF CANCER.

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The Medical Record of May 15th, 1871, contained an article on "Cancer and Cancer-cells," by Francis Delafield, M.D., being a criticism of a paper read by me before the New York Academy of Medicine, April 6th, 1871. The following reply was written at that time, and was intended for publication in the Record, but it was withheld under the advice of friends whose judgment at that time was good. It was on this account solely that I did not answer his objections at once. I am now advised and urged by the same friends—for reasons unnecessary here to state—to present my reply, and also to answer the article in the "Medical Record" of July 15th, 1871, by Dr. O. D. Pomeroy, entitled "Concerning New Instruments," being strictures and incorrect statements having reference to a paper entitled "Aids for the Diagnosis and Treatment of Certain Diseases," by myself, appearing in the Record of June 15th, 1871.

The discussion of grave pathological questions should be entered upon soberly and sincerely. Dr. Delafield's reputation as a pathologist leads me to believe that his criticism is sincere. I shall therefore take up his arguments in the order in which he has placed them, and answer them as briefly as possible. The article referred to begins with some quotations in abstract from my paper, which, for the sake of brevity, Dr. Delafield has so curtailed as to render their significance useless for my side of the argument. I shall therefore take the liberty of quoting from his abstract, and also from the paper, in order to avail myself of it as I proceed. He quotes thus, speaking of the second question to be answered by the microscope:—

"2d. Is the specimen of cell heterologous or homologous, considered as regards the intimate structure of the tumor itself. That is, are all the cells of the same kind, or are they mixed with other cells and elements?"

To be properly understood, this passage should be quoted in full, and would then read thus: "21. Is the specimen of cell found upon microscopic examination heterologous or homologous, considered as regards the intimate structure of the tumor itself, in the relation of cell to cell; that is, do the cells in the specimen present any decided variety of form? For example, do they tend to depart from their original cellular form and develop into fibre; or is there an arrest of the usual evolution of cells which, under normal conditions, would form a definite tissue—a tissue which would be made up of a heterogeneous or heterologous mass of cells—for example, containing a due proportion of embryoplastic, fusiform, caudate, and fibre cells? or is it composed of a homogeneous or homologous mass of cells—cells which do not tend to develop into fibre, or present the usual development of the same variety of cell in normal tissue, but tend to form cell after cell of the same kind, never reaching any higher development than the embryoplastic form—in this sense a homologous cell-growth?"

The explanation here given of what is meant by the terms homologous and heterologous is important.

Most of the arguments presented by Dr. Delafield are those which I had anticipated in framing the above paragraph, and I made it thus long in order that the reader might answer these objections for himself by referring to this definition or explanation. I shall now endeavor to apply it to the cases which Dr. D. has selected; but I wish to say a word in reference to "cancer cells" first. Dr. Delafield objects to the cells figured in the paper as "compound cancer cells," and says, "they are examples of malformed epithelial, connective tissue and glandular cells, and are to be found both in morbid growths and in a variety of inflammatory processes." I will willingly believe that they may be a variety of epithelial connective tissue, or glandular cells, as it will not conflict in any way with the views of a paper which adopts the view that "cancers, as a rule, arise from tissues which were originally normal." But possibly I have not made my illustrations of the "compound cancer cells" as correctly as they might have been presented by a more expert draughtsman; still it makes very little difference whether we agree on this point or not, for I intend to accept and represent a cell which has been agreed upon as the "compound cancer cell." If my drawings failed to bring to mind the "compound cancer cell" of authors, I shall have to refer to some more satisfactory illustrations, and the reader may make his own selection.

As to the "simple cancer cell" (free nuclei of authors), we need have no greater difficulty with it than with the compound cancer cell. It is true that the paper states that it is present in great abundance in the fœtus. Dr. Delafield says that, inasmuch as it is present in most forms of productive inflammation, he has, therefore, fears "that an ordinary observer would be led into great uncertainty to determine whether the specific cells belonged to a fœtus, a granulating wound, or a tumor." I shall be glad to grant that it is present in all these places, and there is nothing contrary to it said in the paper; the paper has its foundation partly in such facts. Should any one be so inconsiderately tormenting as to send to a microscopist for examination the three specimens above mentioned, viz., a fœtus, a granulating wound, and a tumor (I presume we must suppose our microscopist receives only a portion of them, as an "ordinary observer" would be tolerably likely to fall back upon unaided vision, and discover the imposition), how is he to distinguish one from the other, when the "free nuclei," or "simple cancer cells" of the paper are to be found in each of them?

To explain this I beg to quote again from the paper, where, after having spoken of the frequent absence of the "compound cancer cell" in the early stages of a cancer, it being consequently unreliable as an early sign, the paper reads: "If this be so, what else, then, is there to aid us in the diagnosis? I think that what have been called free nuclei by authors in their descriptions of cancer, are the elements upon which we can rely with great certainty, and are in reality as specific cancer cells as the mother cells. I believe that this is no nucleus, but a complete cell; and, using the number and arrangement of these cells in a given tumor as a basis for reasoning, I would have no hesitation in pronouncing upon its malignity as well as the inherent tendency there might be in a growth to affect other parts, or to return after excision." Thus it is that one could determine the specimen which belonged to the fœtus, the granulating wound, or the tumor, viz., "by the number and arrangement of these cells," and not by their simple presence; no such idea is intended to be conveyed by the paper. I have no desire to attribute to my critic an unworthy motive, but is it not clear to every reader that I am by him represented as relying upon the *presence of a cell*, when I distinctly state that reliance must be placed upon the *number and arrangement* of those cells?

And now, as to Dr. Delafield's criticism on the doctrine of heterology and homology, as set forth in the paper, and the supposed illustrations which he has presented. He selects, first, a hypertrophied lymphatic gland, as an example illustrating the form of growth mentioned in the paper as Homologous-Homologous, and therefore, he says, it must be malignant to be consistent with the paper, whereas, in point of fact, it is not.

Now, a hypertrophied lymphatic gland is just the kind of growth which the paper, if *legitimately* followed, would group with the benign growths, and it would, in a most natural way, fall under the class of Homologous-Heterologous, thus, remembering the part of the paper just quoted, a hypertrophied lymphatic gland, being a glandular development, in gland structure, it is homologous as to its seat or surrounding tissue. It is heterologous as to its own cells, for it has not only the heterologous arrangement of a complex and definite structure, with its ducts, tubes, epithelium, and connective tissue, in due proportion, but it is also heterologous, in the strict sense of the paper, inasmuch as there is no "arrest of the usual evolutions of cells, which, under normal conditions, would form a definite tissue," and the cells present the usual development of the same variety of cell in normal tissue, "and do not tend to form cell after cell of the same kind, never reaching any higher than the embryoplastic form." Therefore, when properly placed, according to the paper, a hypertrophied lymphatic gland would be—

Homologous as to the other tissues, and
Heterologous as to its own cells, } benign,

and not as Dr. Delafield has placed it—

Homologous as to the other tissues, and
Homologous as to its own cells, } malignant.

If this be objected to, then—for the sake of the argument and the further explanation of the paper I may admit the Doctor's illustration for the moment—even then the rules of the paper would not make the specimen a cancer, for it would not contain either the compound or the simple cancer cell, and as the paper only included two forms of pure cancer, the Encephaloid and the Scirrhus—both of these containing either the compound or the simple cancer cell—it cannot be classed with them. Being excluded, then, from the

pure cancers for not containing a cancer cell of some description, we might, from the type of cells in a hypertrophied gland, class it as an epithelioma. In the paper it was stated that an epithelioma, or echondroma, etc., could not become malignant so long as they maintain their structure perfect as such. The hypertrophied gland should be examined, therefore, according to the rules given in the paper for epithelioma, and not as a cancer, as we shall see presently in another case.

The next example given by Dr. Delafield is, the exuberant granulations on a stump after amputation, which he classes (in opposition to the plainly expressed views of the paper) as Heterologous-Homologous, and therefore cancer. Exuberant granulations are, according to the paper, Homologous-Heterologous, that is, connective-tissue corpuscles developed from connective tissue. Moreover, the cells of exuberant granulations, if examined throughout their extent, have a decidedly heterologous character, because they develop rapidly from the round, oval form to the fusiform and fibre cell, and they run through the normal evolutions of the connective-tissue cells, and finally form what is known as "scar tissue." It might be claimed by Dr. Delafield that such an abundance of the round, oval cell ought, according to the paper, to make the tissue a cancer. The paper, however, characterized these cells as "specific" only when found in morbid growths, and it was also stated that the number and arrangement of the cells, and not their mere presence, was to decide the quality of the growth. It is not likely that I would have given careful attention to the development of the embryoplastic cell in the fœtus, finding it in great abundance there, and then announce that it was only to be found in cancers, and in that sense specific. Dr. Delafield must have felt, when offering the illustration from the fœtus, that he was overstraining the definition which has been accorded by common consent to the word specific. I shall therefore give him credit for his joke, and pass on to the syphilitic tumors; and even here, without the aid of the explanation given above, Dr. Delafield classes these tumors (having stated that they contain the simple cells and fusiform cells) as homologous-heterologous growths; thus, without being aware of it, he has availed himself of my side of the argument, and the legitimate use of the rules of the paper, and classified the growth correctly, viz., as homologous-heterologous—a benign growth according to the paper and his own showing. Why, then, should they not be benefited by iodide of potassium?

Dr. Delafield says: "Again, when we examine tumors, we find that a large number of those whose clinical history is the most malignant have a regular and composite structure." This has not been my experience; but as he does not give an example of this, I cannot reply to it unless he includes in the same class his case of "ordinary cancer of the breast." Ordinary cancer of the breast would be, according to the paper, either scirrhus or encephaloid, and could hardly be mistaken. A cancer of the breast which "consisted of follicles and tubules of various shapes, and filled with cells which are neither compound nor simple cancer cells," might be, according to the paper, either a hypertrophy of the glandular tissue, an epithelioma, or a true cancer—perhaps a semi-malignant growth—and would present no difficulty in its diagnosis.

Epithelial cancer of the conjunctiva is the last illustration which Dr. Delafield has selected, and he has despatched it with fewer words than any of the other cases to which he refers, whereas, it is in reality the most complicated of all the cases presented, and affords me an opportunity to refer to the class of growths known as epithelioma. I have now to regret that Dr. Delafield, in his examination of this case of epithelioma, which destroyed life within a year, did not "try and find out *all* the elements" of the tumor, "and what their arrangement was." Had he done so, I am sure that his laborious efforts in that direction would have been much "more satisfactory to himself than to his patient," for it would have indicated the malignant character of the growth. Let us look seriously for a moment at this case: Epithelioma of the conjunctiva, characters "formed of regular papillæ, covered with well-formed epithelium;" course, "destroyed life within a year." Here is a startling case, considering that it is *only* an epithelioma, and one which would puzzle a microscopist to decide (by any method with which I have been familiar) as to its malignity. Of what use will it be to study all the elements and their arrangement in this case? Has Dr. Delafield offered any method of deciding the malignant course of such cases? I do not say that there is not another method, but I feel confidence in the one presented in my paper. Of all the questions which come before the microscopist, I believe that of deciding whether an epithelial growth will pursue a benign or a malignant course is the most difficult; and a method which can do this with even tolerable precision is worthy of serious consideration. It is claimed in the paper that the method there offered is capable of doing this, and I am glad, for the sake of illustrating its applicability, that the most difficult case has been selected for me to answer.

The difficulty in this case arises from the fact that it requires a careful examination to decide whether the growth is heterologous or homologous as to the other tissues. Such an examination was not had in this case, or at least we are not informed of the result of it. The conjunctiva is an exceedingly complex tissue. It is composed of basement membrane, stratified epithelium in several layers and differing from one another, columnar epithelium, and imbedded in the substance of the conjunctiva are the glands, lined by cylindrical epithelium; in certain portions of the conjunctiva we find no papillæ, and in other portions they are abundant. Now, in order to decide the relations of this epithelial growth to the other tissues, we must determine from which one of the above-mentioned elements of the conjunctiva the growth had its origin, because it would be heterologous to some and homologous to others. To simply state that the growth is formed of regular papillæ, covered with well-formed epithelium, only gives the relations of the growth as to its own cells, which it appears was heterologous; but I cannot determine, from the case as stated, what were its relations as to the other tissues, for it is not apparent whether the growth arose from the portion of the conjunctiva where there are no papillæ or from the part where they are abundant, from the epithelial layers, basement membrane, glands, or connective tissue; it might have had its starting-point from either of these. Here is an opportunity then, to study "all the elements," and to determine this case it is absolutely necessary to know them. But let us suppose, for the sake of the argument, that this was a simple hypertrophy of the papillæ of the conjunctivæ which pursued such a malignant course, in which case it would have been, as Dr. Delafield states, homologous as to the other tissues, and heterologous as to its own cells, and therefore a simple epithelioma, according to the paper benign, and yet it was clinically malignant. Now, according to the paper, such a benign epithelioma could run a malignant course in two ways: 1st, by attacking the other tissues of the conjunctiva which were not epithelial; 2d, by developing the cancer cell in some part of the growth. I am satisfied that, had it been carefully examined for

the purpose of determining this point, one or the other of these conditions would have been found to be present.

As to the strictures appearing in the MEDICAL RECORD of July 15th, 1871, made by Dr. O. D. Pomeroy, on my article entitled "Aids for the Diagnosis and Treatment of Certain Diseases," I would say that his paper struck me, at the time of its appearance, as one not deserving even a passing notice; but it has since been suggested to me that my silence might award to it a credibility which it ought not to receive.

Dr. Pomeroy's article bears evidence of the author's never having used or seen the instruments which he criticises so freely, or, if he has seen them other than in the woodcuts accompanying my paper, he has entirely failed to perceive in what respect they differ from the instruments which he has been pleased to call similar. It can hardly be that he means, by the expression "similar," to say that they are not different, for the very instruments with which he compares them differ, in many important respects, one from another. The ear-speculum is not the same as any of those referred to by him, and is only similar in the sense that any form of bivalve speculum must be similar in its mechanism to every other bivalve speculum. I made my claim to originality as moderate as possible, and I am confident that they are well founded, as I have seen all the specula to which Dr. Pomeroy has referred.

The ear-scoop figured in my paper resembles in no respect that of Dr. Gross, as stated by Dr. Pomeroy. It is used in a different way, and was intended to accompany the ear-speculum, and avoid that opaque substance, "a surgeon's head." Any one who has seen these two instruments could not by any possibility confound them.

The third instrument criticised by Dr. Pomeroy is the lachrymal catheter, which he claims is similar to an instrument by X. Galezowski, in his "Traité des Maladies des Yeux" for 1870, Part First, page 141, fig. 64. I am acquainted with Galezowski's work; it is now before me; and I had the pleasure of looking over the proof-sheets and plates of this volume, in Paris, before its final publication. I also had the satisfaction of seeing Dr. Galezowski use his instrument, and can find in the two no point of similarity. Dr. Galezowski's instrument is a *syringe* for injecting *the nasal canal*. My instrument is a *catheter* for the *lachrymal passages*. I can only account for the misstatement of Dr. Pomeroy by supposing that he has not seen my catheter, or else he has incorrectly read the passage in Galezowski's work referring to his "Seringue à canule pour les injections du canal nasal."

And now, in conclusion, I beg to express my sincere regret at the necessity which compelled me to make these explanations in vindication of the papers referred to.

A CASE OF INTESTINAL OBSTRUCTION, FROM BILIARY CALCULUS.

By HENRY F. WALKER, M.D.,

NEW YORK.

Mr. H., aged 51, consulted me first during March, 1871, for disordered digestion. Mr. H. is a robust, hearty man, slightly inclining to flesh, of medium stature, regular habits, and had never been ill until within the twelve months previous to my seeing him. He is very reticent, and only in answer to persistent inquiry was I able to extort anything like a connected history of his trouble.

About a year ago, after a ride of a dozen miles in a country wagon, he was suddenly attacked by a violent pain in the right hypochondrium. This was attended with fever, vomiting, and a swollen and intensely tender abdomen. He was kept quiet in bed by his physician, pain was subdued by the free use of opium, and the swollen abdomen was kept constantly covered with poultices. In fine, both the patient's history and the physician's treatment indicate that the illness was a well-managed case of peritonitis. After recovering from his most acute symptoms his physician had told him that he was suffering from enlargement of the liver. From that time until I first saw him his disorder seemed like an ordinary dyspepsia. He complained of flatulence with eructations of wind, constipation, his bowels moving only in answer to enemata; and a sense of uneasiness on the right side about four inches below the false ribs. This pain was seldom acute, but always described by him as a sense of stricture.

Physical examination gave no explanation of the cause of trouble. No tumor could be felt, and percussion and palpation showed that whatever the previous condition of the liver might have been, the enlargement had not persisted. The abdominal walls were quite fat. The renal secretion was normal in amount, and was never found to contain albumen, by heat and acid tests. In one examination only, a few hyaline casts of medium size were found.

Mr. H. was placed upon treatment for his dyspeptic symptoms, taking a mixture containing pepsine, but with little apparent benefit. The distress increased, especially at night, and began to be attended with retching and vomiting. The vomited matter was large in amount, yeasty, and excessively offensive. He never but once vomited blood, and then in small quantity. By microscopic examination nothing diagnostic was found in the ejecta.

During March he had called upon me at my office from time to time, but on April 1st I was sent for to see him. He had had a very bad night, with severe abdominal pain, relieved only on the occurrence of emesis. Bismuth was substituted for the pepsine, a cathartic of calomel and jalap each gr. viij. administered, which acted promptly, producing characteristic stools. This cathartic was repeated three times during the next ten days. Fluid food was ordered in small amount, frequently repeated. As pain was occasionally severe, pills of opium containing one grain were given p. r. n. There was slight tenderness over the right hypochondrium, but although the symptoms seemed to point toward obstruction of some kind, no tumor could be demonstrated. Nausea daily increased, but vomiting and severe pain occurred usually only at night, yet at no regular interval after eating. At this date I learned that Mr. H. had lost a sister from supposed cancer of the stomach.

April 5th, Mr. H. had a very severe attack of vomiting and for the first time looked ill, his face becoming pinched and sunken. The opium was now given by rectal injections, and no food but beef and chicken jelly and iced champagne. Milk was absolutely distasteful. The bismuth was continued.

April 6th and April 8th, Prof. Clark and Prof. Thomas saw him with me. Both agreed that it was intestinal obstruction, but gave no opinion as to its nature.

Each night he vomited profusely, the green watery fluid gushing from his mouth and nose and filling a wash-hand basin. Opium by the rectum seemed alone to control in some degree the irritability of the stomach. From April 9th to April 12th he was nourished exclusively by enemata of beef tea. April 12. After a very

severe attack of vomiting, he exclaimed "it has gone," and declared that the stricture had disappeared. From that time he complained of no more tenderness below the hypochondrium and had no severe vomiting. Repeating the calomel cathartic there was no appearance in the dejecta of anything that could have occasioned obstruction.

April 25. The patient said that he had some trouble with his rectum, that he had felt something there ever since the cessation of pain above. I made a digital examination, and withdrew with much difficulty a gall-stone moulded to the form of the elongated gall bladder, having even a stem-like papilla, which once projected probably into the gall-duct. The body was sausage-shaped, rough externally, 3¼ inches in long diameter and 1¼ in the shorter.

The patient's extreme reticence had kept him from mentioning the troublesome sensation for nearly a fortnight, although questioned if he had voided anything by stool, which might have occasioned obstruction.

My reading of the case is this: a year ago a huge gall stone passed from the gall-bladder by ulceration, the perforation causing peritonitis, and lodged in the upper part of the small intestine and there caused the obstruction which nearly proved fatal.

The special points in this case are partly negative, partly positive.

1st. Had we been able to define the tumor in this case, as we should have done with thinner abdominal walls, the erroneous diagnosis of malignant degeneration of the intestine could scarcely have failed to be made, confirmed as it would have been by the clinical history and the family diathesis.

2d. A gall-stone in the intestine, where it is not likely to enlarge by accretion, may ultimately be the occasion of obstruction, though remaining innocuous for nearly twelve months.

3d. Intestinal obstruction sufficient to endanger life may not hinder the natural action of such cathartics as calomel, whose especial action, whether absorbed or not, is on the liver, *i. e.*, above the site of the obstruction.

ON THE PHYSIOLOGICAL PHENOMENA OF SCARS.

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I propose to present a case showing to what an extent have the sensibility and some of the physiological functions of the skin recovered their normal characters, in a scar caused by burning in the body of a patient occupying bed No. 5, in the male ward of the Hospital for Epileptics and Paralytics, of this city.

The cicatrix to which I allude was accidentally caused by the ignition of some matches the patient had in his pockets about twelve years ago. He was obliged to keep his bed for three months after the accident, during which time, according to his statements, inflammation set in to a very large extent, principally at the centre of the wound; during the fourth month he was able to walk, and at the end of the eighth month cicatrization had completely taken place.

The general appearance at first was that of a very marked black tint, which gradually changed into a bluish red one, and at present the bottom presents a whitish-yellowish look, with some disseminated patches of a very light rosy color.

The outlines are marked as follows: the upper border reaches as high as three inches below the right nipple; the lower is traced three inches below the lower border of the fifth false rib; the inner border corresponds to the median line of the body, and the outer one to an imaginary line drawn from the anterior superior spinous process of the ilium to the right shoulder articulation.

To ascertain the state of the sensibility to pain, I have made use of the galvanic current, and the painful sensation as well as the galvanic spark have been obtained with the same promptness as in the other parts of the body taken for comparison.

By using heat and cold, the sensibility to temperatures was seen to be perfect, this being also the case in regard to the sensibility to contact.

Two blisters of one inch in diameter were applied, one at the centre of the cicatrix and the other at a similar point on the opposite side of the body; both were left on for the same length of time, "ten hours," and when removed vesication had taken place to the same extent on both sides, the patient stating that shortly after the application of the vesicants he began to feel a sensation of burning at the same time at the seat of both blisters.

To appreciate the process of absorption, four drops of the Oleum Tiglii were rubbed on at the centre of the cicatrix after promoting some irritation of the part. For three days previous, the patient had been costive; and seven hours after the said application diarrhœa was present, lasting nearly two days. A few days afterward eight drops of the same oil were applied; four at the centre of the scar, and four on the opposite side of the body; this time not only was diarrhœa present to a considerable degree, but a healthy and similar pustule was formed on each side.

The state of the sensibility to points was ascertained by the use of the æsthesiometer, and compared with that obtained on the corresponding part of the left side of the body; the patient was able to distinguish two points by placing the legs of the instrument separated to the extent of two centigrammes and a half.

With the aid of a surface thermometer the temperature of the affected side was ascertained and compared with that of the opposite one; there was but one degree of difference; that of the former being 92°, and that of the latter 93°.

I have not been able to detect the presence of any hairs in all the space comprised by the scar, but it is remarkable that perspiration, which was completely absent for some years succeeding the accident, is now present.

Residing in the same Hospital were two patients on whose bodies two different scars were present, of very old standing, caused in a similar manner as that of the present case, and upon which I have carefully tried the same experiments without any satisfactory results.

Progress of Medical Science.

Sesquichloride of Iron as a Prophylactic in Acute Rheumatism.—Dr. Austin reports, in *The Practitioner* of September, twenty-nine cases of threatened acute rheumatism treated with this remedy. He says: "Whereas threatenings of gout could be very commonly dealt with in such a manner as to prevent the attack or render it trivial, the onset of acute rheumatism seemed never to be averted by drugs when once the prodromata had reached the stage which pretty frequently presented itself before me, viz., a more or less obscure aching of several joints, a yellow sallowness of

face, with patches or streaks of dusky redness, blanket-like furring of tongue, an oily moisture of skin, a distinct though slight elevation both of pulse and temperature, and a certain anxiety of respiration. So far as the history of such patients could be traced, they were almost invariably found to have developed the full symptoms of the acute disease, and very often (after once seeing them in the out-patient's room) one encountered them a few days later in the ward of the hospital.

Very different have been the results of treatment since I adopted the use of full doses of sesquichloride of iron from the first moment of such cases presenting themselves. During the past twelve months I have done this fully. Whenever a patient has presented himself with articular pain and slight fever that were plainly of the rheumatic, and not of the gouty type, he has been at once placed on thirty or forty minims doses of the tincture of the sesquichloride, from three to six of which, according to the severity of the symptoms, have been given in each twenty-four hours.

Since July, 1870, I have treated twenty-nine such patients, of whom thirteen had previously had one or more regular attacks of rheumatic fever, for the symptoms now referred to, with full doses of iron; and of these, seventeen have lost all pyrexia and spontaneous joint pain within the next three or four days. Only three have, under my own eyes, developed the full acute disease, and been sent into the ward. Of the remaining nine, four disappeared altogether from my knowledge; the other five, though their symptoms were checked, remained in a state of what might be described as sub-acute rheumatism, during from ten to twenty days.

I cannot help remarking with emphasis on the contradiction to old ideas which is involved in the effect of this iron treatment upon the furred tongue. Of course it becomes speedily blackened, but so far from the furring increasing, or the dryness and foul taste becoming more pronounced, what commonly happens is, that after a few days the epithelial coating falls off in considerable patches, and the tongue soon cleans altogether."

The Compression Treatment of Aneurism.—*The Lancet* gives in brief the scheme of treatment so successfully pursued by Dublin surgeons in this affection, as explained by Dr. Macnamara at the late meeting of the British Medical Association.

The patient having been brought into good general health, and being neither anæmic nor hyperæmic, an elastic compresser is applied to the upper part, say of the femoral artery, a second compressor being arranged some three or four inches lower. The upper instrument is then adjusted so as to control the artery, and just arrest the pulsation in the sac and no more. "A roster of intelligent students is now organized, and to them is intrusted the management of the case. Two are appointed to take charge of the patient for an hour, when they are relieved by two others, and so on during the day, whereby unwearied attention is secured during the period that pressure is kept up; and, as in Dublin, hospitals are visited at 9 A.M., the treatment generally commences about that hour and is continued up to 9 P.M., when all pressure is removed, and the patient is encouraged to take his night's rest undisturbed. Next morning the treatment is resumed, and so on until the case is accomplished. Dr. Macnamara pointed out that thus every exertion is made to conduct the case with as little inconvenience as possible to the patient.

The occurrence of a sharp pain in the neighborhood of the knee is looked for as the harbinger of cure, since it depends upon the rapid enlargement of the collateral circulation.

Iodoform Ointment for Syphilitic Ulcers.—In the Boston City Hospital iodoform ointment, in connection with iodide of potassium, is extensively and successfully used in the treatment of syphilitic ulcers and rupia. Dr. W. Ingalls, attending surgeon, advocates this formula in two obstinate cases under his care, ℞ Iodoformi, ʒ ss.; Spts. vini rect., q. s.; Adipis suill., ʒ viiss. M.—*Boston Med. and Surg. Journal.*

Liniment for Fissure of the Anus.—M. Van Holsbeck states that he has succeeded in curing anal fissures with the following application, which had resisted the division of the sphincter: dissolve one part of tannic acid in 16 parts of glycerine. A tent wet with this preparation is to be introduced into the rectum night and morning. The bowels are to be kept open.—*Medical News.*

Dysmenorrhœa.—Dr. W. K. Boling (*Nashville Jour. of Medicine and Surgery*), reports the case of a patient who had suffered from dysmenorrhœa, who had never been pregnant, and who had never suffered in her turns before marriage. A pil. of opium, camphor, and lupulin was prescribed, with the effect of quieting the pain, but the after-effect of the opium being disagreeable, she could not be induced to again resort to opium. She continued to suffer at each period for several months. She then, at the beginning of a pain, sat a few moments on a chamber in which a drachm of spirits of ammonia had been placed. In a minute the pain was gone, and did not return. The same result follows at each period since.

Gangrene Treated by Turpentine.—Dr. Lange mentions a case of gangrene in which turpentine, after other remedies had proved ineffectual, not only saved the patient's life, but also nearly all the parts affected. A girl eleven years old had gangrenous destruction of the right cheek. The part was treated with turpentine on lint, and the dressing changed every two hours.—*Indiana Journal of Medicine.*

Carbolic Acid as a Local Anæsthetic.—Carbolic acid possesses wonderful powers as a local anæsthetic. If a portion of skin is covered with a cloth soaked in a saturated solution of carbolic acid for half an hour, and then a streak traced across the surface with a camel's-hair brush dipped in acid liquefied by one-twentieth its bulk of water, the skin may be divided along the course of the streak with a sharp scalpel, quite down to the subcutaneous cellular tissue, without causing any pain. Abscesses, whitloes, and buboes may be opened with great advantage in this manner. Sometimes it is necessary, when making an incision through the integument, to brush out the wound made with some liquefied acid before making the incision deeper. —*Dr. J. H. Bill, Braithwaite's Retrospect.*

Chloral in Cod-Liver Oil is said to render it much less nauseous, and prevents the night-sweats of the phthisical patient, induces sleep, and creates appetite. The pure chloral-hydrate crystals may be added to cod-liver oil in the proportion of ten grains of the former to one hundred and ninety of the latter.—*Medical Times.*

The First Application of Sulphuric Ether in Midwifery.—Dr. Tyler Smith, in his remarks at the London Obstetrical Society, regarding the death of the late Sir James Y. Simpson, said that Simpson never claimed to be the discoverer of anæsthesia; but he did claim, and claimed justly, the first application of sulphuric ether as an anæsthetic in midwifery, and the discovery of the power of chloroform.

Bromide of Sodium.—As it is generally acknowledged that the prolonged use of bromide of potassium, in epilepsy and other nervous disorders, is often attended with serious inconveniences, and even dangers, Dr. Meredith Clymer, of New York (*Med. World*), believes that in the *bromide of sodium* a happy substitute has been found that will fully meet every indication for which the bromide of potassium has been given, and is free from the objections which are justly urged against the latter. The taste of the bromide of sodium is much less unpleasant than that of the bromide of potassium, being very like common salt, and it may be used to replace the latter, mixed with the food, as with bread and butter, eggs, in milk, etc. Hence it is of more easy administration than bromide of potassium, to the taste of which some persons have invincible repugnance, and increasing with its use. It is of the first importance that bromide of sodium should be perfectly free of all impurities, particularly of iodine. Larger doses of the hydrated salt are required than of the anhydrous, for it crystallizes with four equivalents of water.

The doses of bromide of sodium are about the same as those of bromide of potassium. In epilepsy he usually gives 20 grains three times daily, and has rarely gone above that amount. It sometimes seems to cause or encourage constipation.

Bisulphite of Lime as a Deodorizer.—Dr. J. D. Trask, Astoria, L. I. (*N. Y. Medical Journal*), in a paper on "Carbolic Acid as an Anti-zymotic in Puerpural Diseases," calls attention to the bisulphite of lime as a deodorizer. The excess of sulphurous acid, passing into the atmosphere, comes directly in contact with the offensively odorous particles that have escaped, and at once destroys them. In giving vent to collections of decomposing purulent matter, as in the peritoneal or pleural cavity or in chronic abscesses, cloths wet with this preparation held near the orifice almost entirely prevent the escape into the room of the offensive smell, to the great relief of patient and bystanders. Though the strong solution will destroy fabrics, when properly diluted, as when used for vaginal injections, it neither destroys nor discolors bed-linen.

Rhinoplasty—Talicotian Operation.—Dr. J. F. Miner, of Buffalo, N. Y. (*Buffalo Med. and Surg. Journal*), reports a successful case of rhinoplasty after the *Talicotian* operation. The patient, a young woman, when first exhibited to the class, was deficient in the entire lower half of the nasal organ, leaving the nasal cavity exposed and unsightly. Three months after the operation the patient was again introduced, with a restored organ so perfect in all respects as not to attract attention as presenting anything unnatural. It has been examined by many surgeons of great experience, both in our own and foreign countries, who pronounce the result in all respects unsurpassed.

The experience in this case leads him to believe that the *Talicotian* operation is very difficult and uncertain, and that, though successful in this instance in a remarkable degree, yet many partial or entire failures will accompany every such case of success. The risks of non-union, the liability to death of flap after separating it from the arm, the certainty that any change or pressure upon the delicate vessels which supply the part attached, will interrupt the circulation, or destroy the vessels altogether, constitutes sources of entire failure; while miscalculation in the size, shape, and adjustment of the new material is liable to cause failure in obtaining proper contour of the organ. The whole procedure is attended by difficulties and uncertainties; but if attended by success in one case, the achievement will amply compensate for several failures.

Chloral-Hydrate and Bromide of Potassium in Chronic Alcoholism.—Dr. F. Bradnack (*Buffalo Med. and Surg. Journal*) calls the attention of the profession to an original method of treating chronic alcoholism, namely, the combination of unusually large quantities of chloral-hydrate and bromide of potassium. He administered to a patient, suffering from six days' debauch, these remedies in the following proportion:—R. Chloral, hydrat., ʒ ij.; Potassii bromid., gr. lxxx.; Syrupi simp., ʒ j.; Aquæ, f. ʒ ijss. M. Ft. haust. These enormous doses, 120 grs. chloral-hydrate, and 80 grs. of bromide of potassium, were given to the patient, merely dividing the mixture into parts, and diluting each with a little water, both doses being taken within five minutes. The effects of this prescription were very gratifying. The patient had a tranquil and unbroken sleep for fourteen hours.

The details of this case appear to him to prove presumptively two points:—1st, That in cases of chronic alcoholism enormous doses of chloral-hydrate are not only tolerated, but are productive of great good; 2d, That a combination of bromide of potassium with chloral-hydrate furnishes a simultaneous sedative and hypnotic so excellent as to seem to indicate its use in diseases of this nature.

The Value of Circumcision as a Hygienic Measure.—M. J. Moses, M.D., New York (*N. Y. Medical Journal*), speaks of circumcision as a hygienic and therapeutic measure, and is convinced that the Jews of the enlightened school are inaugurating a dangerous reform, in the desire to invade the hitherto inviolability of the Jewish law; and he would impress upon his professional brethren of other creeds the necessity of explaining to their Jewish patrons the value and *safety* of maintaining circumcision, if not as a religious duty, as a hygienic measure, the importance of which probably influenced its institution as a ceremonial law.

Dr. Moses remarks, that if the following plan is observed, all danger may be considered as provided against, and need *never* occur, if the surgeon watch his case properly.

1st. The amount of tissue sacrificed should be only *just enough* to divide the muco-dermoid junction.

2d. The reflected mucous membrane should be carefully adjusted to the cut edge of the dermoid fold.

3d. The frænum should not be wounded or lacerated.

4th. The wound should be kept open until active bleeding ceases, and the effused lymph has glazed on the line of approximation.

5th. The dressing should be the ordinary cold-water dressing, made of very fine linen, lightly applied.

6th. The surgeon should visit his patient and renew the dressing two hours after the operation.

7th. A careful and attentive nurse, duly warned as to any possible accident, should watch the dressing from minute to minute. The dressing of cold water should be exchanged for one of soft oiled linen the morning following the operation.

8th. As soon as the healing has well begun, all dressing should be discarded, and the parts bathed in tepid water after each voidance of urine.

9th. The operation should be done by a surgeon, and the condition of the child, as to his ability to undergo the ordeal, submitted to his direction.

To guard against hemorrhage, even under these circumstances, a reliable styptic, tannine, Monsel's iron, pulv. matico, punk, cobweb, the so-called alum-iron, charpie, etc., should be left with those who are charged with the care of the child, with careful directions as to how, and under what circumstances, it is to be applied.

THE MEDICAL RECORD.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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New York, November 15, 1871.

THE NEW METHOD OF DODGING DISCIPLINE.

THE recent decision of Judge Barnard continuing the injunction against the Comitia Minora of the Medical Society of the County of New York, in the case of A. Ruppanner agt. Austin Flint et al., is, in view of all the facts of the case, a rather remarkable one. As it is on its face calculated to excite an unjust prejudice on the part of the profession against the said Comitia, a simple sense of justice prompts us to present some of the leading points of the case to our readers.

It appears that Dr. A. Ruppanner published in the New York *Medical Journal*, vol x., No. 4, Jan., 1870, a paper entitled "Contributions to Practical Laryngoscopy," in Case III. of which the history of an operation for removal of a large malignant tumor involving the infra-glottic space and trachea is narrated. The reader is left to infer that the operation was performed by Dr. Ruppanner, as shown by the following statement:—"My friend, Dr. L. A. Sayre, who had seen at my request the patient at a former consultation, consented todivide with me the responsibility, and to aid me with his experience and skill in performing the operation, so as to give me free scope for observing the course, position, extent, and nature of the tumor." Dr. Sayre, who, it appears, was really the operator, courted an explanation, and an apology was written by Dr. R., in the shape of a note to the former gentleman, regretting the oversight, and promising to publish the said note in a succeeding number of the same journal. This promise, for some unknown reason, not being kept, Dr. S. writes to the *Journal*, claiming his rights and publishing the note from Dr. R., or at least the substance of it. Dr. S. also refers to a serious complication of the operation, in the shape of a severe hemorrhage, and alludes to the fact that but for the timely introduction of a feather into the canula the patient would have been drowned in his own blood. This fact was, like the other regarding the operation, accidentally (?) omitted by Dr. R. in his published account. Dr. R. in reply to this letter writes another to the same journal, the principal purpose of which seems to be to attempt to prove that Dr. Sayre is anything but a truth-loving, high-minded gentleman; that he is ignorant of many points connected with tracheotomy; that the bleeding was indeed a very small matter; and that the operation, which he virtually admits was performed by said Dr. Sayre, was, after all, a very trivial one. Aside from this, Dr. R. lends himself to an unmanly attack upon Dr. Sayre, in publishing extracts of newspaper reports of some of Dr. Sayre's cases, which reports were sensational enough in their way, but which had nothing whatever to do with the question at issue. Then a reply comes from Dr. Sayre denying the facts therein stated, not only in regard to the particular points under discussion, but to the other statements. To any person who had the time, or inclination, or patience to read the voluminous pamphlets which arose from this quarrel, it was a matter of astonishment how two physicians could be, on the same question, so right and yet so wrong. The profession, as a whole, did not, however, care to form any opinion upon the peculiar merits of the controversy, even the personal friends of both parties looking upon it merely as a question of veracity.

So, according to our understanding, stood the case when Dr. Sayre preferred the following charges against Dr. Ruppanner before the Comitia Minora of the Medical Society of the County of New York, which we quote from the complaint of Dr. Ruppanner, on file:

"I charge him with having published as his own an operation which I myself performed, and that he also published it falsely. I charge him with writing me a note promising to correct this error in a succeeding number of the *Medical Journal*, which promise he did not keep, and told Dr. Vance that he never intended to correct it.

"And I charge him also with publishing and extensively distributing to the press, clergy, and laity, a pamphlet, falsely charging me with professional dishonor, and calculated to injure my professional reputation with those who did not know me."

These charges were presented in accordance with the By-Laws of the Society, and the Comitia Minora, to whose consideration they belonged, took the usual cognizance of them, and proceeded to the trial in the usual way. A copy of the charges was sent Dr. R. and he was summoned to appear before the Committee. It appears that he did present himself and entered protests which referred to the want of specific charges as to time, place, etc., and which also referred to the fact that counsel was not allowed, and to the additional fact that the summons was not personally served. It seems, from the sworn statements of the members of the Comitia, that they "gave respectful and most careful consideration to each and every

objection, and by vote overruled the same," and directed the proceedings to continue. As far as we can learn, Dr. R. failed to put in any further appearance or to take any further notice of the doings of the Committee, giving additional reasons for such action, that he did not receive a copy of the "stenographic notes of the proceedings on the part of Dr. Sayre (as he alleges was promised him), and that since the proceedings were commenced two of the members of the Comitia had departed this life, to wit, Dr. W. B. Bibbins, and Dr. Geo. T. Elliot.

What was done in the meetings of the Comitia subsequent to this does not appear; but when they are ready to make their report, an injunction against such a proceeding is granted by Judge Barnard. The manner in which this notice of the court was received by the Society our readers are already informed. The said injunction was granted on the complaint of Dr. R., in which it would appear a conspiracy had been entered into on the part of the Comitia, abetted by Dr. S., to ruin the plaintiff and to expel him from the Society; and the said complaint contained an *ex parte* statement of legal irregularities on the part of said Comitia, that sufficient time was not given Dr. R. to prepare a defence, and that Dr. S. was granted every privilege, and also the existence of personal malice and the refusal to keep promises solemnly made to plaintiff. When the case came up for hearing, which was not (on account of postponements) until Oct. 22, it was argued and affidavits were presented from the Comitia Minora, absolutely denying the several statements in the complaint. Notwithstanding this, however, the injunction was continued, and the case now rests until it comes up for trial in the Supreme Court.

We have striven to present the facts as we have gleaned them from voluminous published reports, from the complaint of Dr. R., and from the affidavits, the latter of which are on file. We are now ready to glance at the case as a whole, and to attempt to reconcile the remarkable decision of his Honor with the rights which any Society may have for enforcing discipline among its members.

The decision starts with an admission that the Society can expel for violation of by-laws. This is highly valuable ruling, no doubt, in cases where it may be applicable; but it has not the slightest relevancy to the case of the plaintiff. If there be a sustained charge against him by the Comitia, it is evidently not for violation of by-laws. From this groundless beginning the Judge goes on through his decision, misrepresenting facts to such a degree, and with such effrontery that even the profession in large numbers have been led by it to regard Dr. R. as a very much abused person, and that the said Comitia were mere instruments of prosecution in the hands of the said doctor's enemy.

The first error emitted is the declaration that said Comitia "have no legal right to put a member of the Society on trial." There is nothing plainer in statutes than this authority of the Comitia. The qualification of this assertion of the Judge by adding, "without substantial and definite charges of some offence of which they have jurisdiction," is mere twaddle, as the Comitia are the only judges as to their jurisdiction, and there has thus far appeared no proof that they have ever been known to wander beyond it.

Again, the Judge ventures to declare that the charges which said Comitia were forbidden to report upon "were fatally defective in form and substance." This is also a matter about which the Comitia must in the nature of things be the sole judges, and no magistrate's dictum is of the slightest weight in it. Whether the Comitia regarded, as does this Judge, the charges as "a paper of general vituperation," without an allegation of the violation of the laws of professional ethics, we are not yet permitted by his Honor to know. From the fact set forth in this same document, that the Comitia were more or less engaged for eight months in considering these charges, we should at once conclude that they were more than "vituperation," and contained subjects within the jurisdiction of the Comitia, the Judge to the contrary notwithstanding.

The affidavits signed by the eight or nine members of the Comitia positively contradict the statement of the Judge, that the aforesaid Dr. R. was denied "a reasonable time to produce his evidence to meet the accusation." He was allowed according to the sworn statements of the several members of the Comitia Minora, all the time and much more than all the time he asked for. He was given every opportunity to defend himself at the meeting and out of the meeting, that any reasonable and well-disposed person could ask.

It is equally false that said Comitia granted any privileges to one party that were not freely granted to the other. It is true that the accused party protested; but it is not true that he protested against the refusal of the Comitia to grant him certain things that no right-minded physician would have asked. His protest, as the complaint shows, was against the Comitia's taking any action *whatever* upon the charges—a mere impudent assumption to point out to the Comitia their duties.

The facts, from all the documents to which we have access, appear to be that equal privileges were given to both parties by the said Comitia; and that while one complied with the rules of the Society and the Comitia, the other refused to comply, and exacted improper and totally unnecessary proceedings, clearly showing a determination to resort to legal quibbles in order to evade a straightforward investigation into the matter of the charges.

We challenge authentic contradiction of these statements. There is another conspicuous idea running through part of this decision, and, of course, the complaint (for the decision is manifestly merely a copy of the complaint), with no regard to the sworn statements of the large and most respectable Comitia. This idea

is, that with a foregone conclusion to report adversely to Dr. R., the Comitia were mere instruments in the hands of the party accusing. We have found no proof of a shadow of truth in this allegation; and we defy any one to sustain this, as we believe, unmerited and libellous fabrication. The very names of the persons composing that Comitia are enough to stamp the mark of falsehood upon such an assertion. There is no proof in the complaint, and we challenge the production of any from records, of the truth of the allegation of the Judge that the Comitia ever promised the accused a stenographic copy of the evidence of the accuser. Whatever this Comitia promised him they unquestionably furnished. The profession may, and no doubt upon reflection will, rest assured that the Comitia has been libelled in this decision. But the most remarkable and significant proceeding in all this affair is, as we have on a previous occasion remarked, the prevention of a purely imaginary calamity by the injunction. Whether the Comitia, after their eight months of labor, arrived at any definite conclusion in regard to the charges, is not known. We might venture the opinion that, so far as the original charges went, the accused would have been very leniently treated; but, judging from the universal reprobation in which his resort to the courts is held, he will have extreme difficulty in returning to his former position of accepted respectability in the profession. That respectability which clung to his professional character, in defiance of the charges, has, by this unnecessary and utterly foolish appeal to the courts, rapidly vanished. All understand that the rights of no member of the Medical Society ever demand such a resort. Every honest physician knows that such resort is a subterfuge used only by the guilty.

In conclusion, we are forced to say, irrespective of the truth or falsity of the original charges, that the act of obtaining the injunction is under the circumstances simply outrageous, and must on its face force the conviction upon the mind of every unprejudiced person that it is in itself a palpable evidence of guilt.

Aside from this, it is a direct and unpardonable insult to a body of high-minded, honorable professional gentlemen, through them to the Society, and through the Society to the profession at large, and as such should be properly resented by punishing the instigator. It may be possible that the Society may remain powerless to inflict the just punishment of expelling the member; it may be possible that when the case comes up for trial Dr. R. may be sustained; but there is a power behind even the court of law, and which no mere legal decision can reach, which no arbitrary ruling can affect, and that is the right of each and every medical man throughout the land of forming his own opinion upon the matter, and of judging for himself of the particular merits of such a case as we are now considering. The question is not one between man and man—as such it would be of little moment to the profession; but it is one of a principle, a principle the violation of which is an attempt to undermine the very foundation of every honorable feeling which, as members of a noble profession, we have taken such a pride in cherishing.

We take occasion to call the special attention of our readers and of the profession throughout this country and other countries, to the report of the doings of the Committee of Relief for the suffering medical profession of Chicago, and also to the circular of said committee, published in other portions of this journal.

The committee deem it proper to continue their sessions, and to increase the fund to an amount that shall insure a provision for the sufferers during the coming winter; and it is to be hoped that their example in this respect may be followed by similar organizations. There is no reason why many thousand dollars cannot be raised by small subscriptions, if each and every one who may read this appeal considers it, as he should, his duty and privilege to contribute. We are assured that the distribution of the funds is in good hands, and that the amounts received will be distributed in quantities proportioned to the respective necessities of the recipients. New York has given over five thousand, and it can be accountable for as much more. We learn from a private note written to us from Dr. N. S. Davis, of Chicago, that St. Louis has sent in about a thousand dollars, and Cincinnati nearly five hundred. There is also a report that Toledo has contributed two thousand five hundred dollars. We have not heard from Boston, Philadelphia, or the other large cities, but presume that our medical brethren in those places are emulating each other in the spirit of liberality.

The October number of *The Doctor* contains a leading article upon the subject of The Doctorate, in which, after quoting some of the advertisements from the secular papers for the sale of medical diplomas, remarks:—

"One, for instance, is addressed, in the most barefaced way, to unregistered doctors, and is evidently meant to tell them a diploma is for sale. We set inquiries to work about this, and were offered a diploma of the 'Medical College of New York,' ready signed, but the name blank, for the sum of £10, which was sunk to £5 on an insinuation that it was dear at the money, and ultimately offered for £3 10s. We were told the College was destroyed in a fire, and some diplomas, ready signed, fell into the hands of some one who thus disposed of them. One name appended was the distinguished one of the late Horace Green, and an inaugural address of his one session was offered into the bargain. We were also assured that more than one diploma obtained in this way was registered by the Medical Council.

"Now, we want to know from our editorial *confrères* in New York, whether such a college ever existed; if so, whether it was destroyed by fire? Fur-

ther, whether it is customary to keep diplomas ready signed, or whether this was probably a forgery?"

In answer to the questions, we would state that there was a college in this city known as the New York Medical College. Although the institution ceased to exist several years since, its building still stands. Dr. Horace Green was at one time its President. The University Medical College building was destroyed by fire a few years ago, and a new building has since been erected opposite the Bellevue Hospital. Considering the reputation which *The Doctor* has earned for itself this side of the water as a first-class medical journal, we confess ourselves surprised that it should ask the last question. Ready-made diplomas may be issued by quack institutions, but our regular schools have not quite descended to the level of selling their birthrights. There is only one way of obtaining diplomas from our first-class medical schools, and that is by following out the full course of study prescribed by law, and by passing a creditable examination at the end of that time. The Faculties of our medical schools here would no more think of filling out blank diplomas, and allowing them to be sold, than any single one of them would allow his bank-check to be disposed of when he had signed it in blank. We may dodge discipline by getting out injunctions against societies, but we still have enough of self-respect left not to abet forgery.

The *New York Herald* of the 10th inst. publishes a long letter from a correspondent in Ecuador, who has made a trip into the mountain country where Cundurango grows, and who gives a rather unfavorable account than otherwise of the reputation which it bears in the locality where it is found. Several varieties of the plant seem to exist, known as *Cundurango blanco, de Paloma, de tumba grande, de tumba chico, de algodoncillo, de plantano, de amirilla,* and a variety said to be found only at Loja, a valley in the Andes, about 8,000 feet above sea-level, which resembles *C. blanco,* but is claimed by the natives to be, nevertheless, quite distinct from it, and the only variety possessed of medicinal value. This was the kind presented by Minister Flores to the State Department, and the sample so presented is said to have been the only one brought to this country as yet—the speculators, who have been buying largely and who have created quite an excitement, having purchased at Quaruma, a place nearer to the coast, the variety *tumba grande,* which is found there in great abundance, but is not supposed to possess any medicinal value whatever.

The cases of cancer reported to have been cured there by the use of this remedy turn out to have been cases of syphilis, and not cancer at all, and the writer says, "in fact, out of all the cases I could collect that had been treated with Cundurango for serious diseases, every one died soon after the cure was said to have been effected."

The *Herald,* in its following issue, suggests that the State Department, before it goes any further in advertising this drug, should ascertain if it have any curative virtue, and is apparently in ignorance of the facts stated by us in our issue of Sept. 15th, with regard to the manner in which the State Department has refused to make public the reports it has already received on the subject from persons not interested in the sale of the nostrum.

We also notice the statement in the *British Medical Journal* of Oct. 28th, that the sample sent by our State Department to the English Government has been tried in several cases of cancer in the Middlesex and St. Bartholomew's hospitals, and has failed to arrest in any degree the progress of the disease in the former institution.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 25, 1871.

Dr. A. L. Loomis, President, in the Chair.

RUPTURE OF THE UTERUS.

Dr. Finnell presented a specimen of rupture of the uterus, with the following history prepared by the medical attendant:—

Mrs. Peeney, æt. 43, large and corpulent, at noon on September 26th was taken with labor-pains in her eighth confinement; her fifth, sixth, and seventh having terminated by instrumental delivery.

Her attending physician found the presentation and position were those of a natural labor, pains slight and at long intervals. "All," he said, "seemed well, but slow." About 4 P.M. the pains increased in severity and quick in succession, and at 5 o'clock P.M., on examination, the uterus was found to be ruptured, the child still remaining in the uterus. The pains ceased.

The case continued in this state for 15 hours longer, when Dr. —— was called, who, after giving the most unfavorable prognosis, by producing version, delivered the woman of a very large child (probable weight 14 pounds). The patient lived two hours after delivery, and died at 10 o'clock A.M., having been twenty hours in labor.

The autopsy made on the morning of the 29th, two days after death, revealed a rupture of the neck of the uterus in front and through both lateral surfaces, the largest rupture being on the left side of the cervix, the fundus remaining intact.

The abdominal walls and omentum showed heavy deposits of adipose tissue. The peritoneal cavity showed but slight effusion or hemorrhage. The peritoneum was slightly injected.

The conclusions arrived at were that death was probably caused by fatty degeneration of the uterus, the large size of the child being an exciting cause.

No ergot or other uterine stimulant was used, unless a little camomile tea could be called such an agent.

MORBUS COXARIUS—RESECTION—CHEESY DEPOSIT IN LUNGS.

Dr. Mason presented the head and neck of the femur removed by operation from a lad, aged 10 years, an inmate of the Colored Home. The patient entered the hospital last June, in the third stage of hip-disease. The pelvis was tilted, the thigh flexed and adducted, and there was a large abscess directly over the trochanter

and opening just below Poupart's ligament, on the inner surface of the groin; also a large opening in the middle and outer aspect of the leg. These openings communicated with the abscess surrounding the hip-joint. During the previous Fall the patient was run over by a heavily-laden wagon, the wheel of which passed directly over his hip. He was only confined for a week on account of pain, but at the end of that time he was able to get about on crutches. He was walking on crutches when he entered.

Placing him under ether, and rotating and flexing the joint, osseous crepitus was evident. On consultation it was concluded that the patient's only chance lay in resection of the hip-joint. The operation was accordingly performed July 22d. The shock following the operation was considerable, but for a week the improvement in his general health was most gratifying. During the second week, through the negligence of his nurse, a bed-sore was allowed to form directly over the sacrum. He was then placed in a plaster-of-Paris apparatus, supplied with crutches, and allowed to go about. This he continued to do, improving all the while, until August 18, when his right foot was noticed to become œdematous, and also his face to become markedly puffed. The urine was then examined, and large quantities of casts and albumen discovered. Under diuretic treatment the bad symptoms disappeared, and the patient again improved, until September 24, when the anasarca returned; and on the 26th, when diarrhœa appearing, he died.

The operation was performed in the usual way. The head of the bone was found lying in an abscess. The periosteum was detached for some little distance along the shaft to a point a little below the trochanter, where the section was made with the chain-saw. The acetabulum was extensively diseased, but by the aid of the finger-nail and gouge a good deal of necrotic tissue was removed, and the surface was left perfectly smooth.

The autopsy discovered amyloid degeneration of the kidney, and also of the liver. There was a deposit of cheesy material in the apices of both lungs, and between the pelvic fascia and the bone there was a large deposit of this cheesy material.

The acetabulum was perforated, and was still extensively diseased.

In conclusion, he remarked that the case was one which could bear upon a question recently asked Dr. Sayre by Dr. Flint, to wit: Does cheesy deposit in the lung ever exist as the result of long-continued hip-disease? The question was answered at the time by Dr. Sayre in the negative, but in the present instance it could be replied to in the affirmative.

Dr. Sayre thought that a fracture of the acetabulum had occurred, as there was a sequestrum at the point where the fissure was situated.

Dr. Mason remarked, if it were a fracture it must have occurred at the time of the injury. He had not satisfied himself on that point, as he had brought the specimen in a fresh state for the inspection of the members. In answer to a question, he stated that the pelvic fascia had not been perforated.

Dr. Hamilton was not disposed to think this a fracture, as the line of separation corresponded with the junction of the pubic and iliac bones, which at that time of life is occupied by cartilage. In his opinion this cartilage had become implicated in the diseased action.

ABDOMINAL ANEURISM TREATED BY GALVANO-PUNCTURE—THE POST-MORTEM CONDITION OF SAC.

Dr. E. L. Keyes exhibited a specimen of aneurism which had been seen on the living subject by several of the members, and which in the matter of treatment presented some points of interest. The patient was a female aged forty-two. The family on the mother's side were healthy, but all of the father's (immediate) family had died of phthisis. In the latter part of February, 1870, a small movable pulsating tumor was discovered in the epigastrium, which was diagnosticated by Dr. Loomis as an aneurism of the superior mesenteric. The same diagnosis was made by Dr. Janeway, and also by several other gentlemen who subsequently saw the case. Dr. Keyes saw the patient in the month of March, 1871, and at that time the tumor was as large as the fist, occupying the epigastric region. The lower margin of the tumor reached to the umbilicus, and the greater bulk was to the left of the median line. The upper portion disappeared under the ribs, and was softer than the lower portion. On auscultation a double bruit was very distinctly heard. On consultation it was concluded to make an attempt to treat the case by galvano-puncture. To this end Dr. Keyes experimented upon dogs who were etherized. He opened them in the median line, and subjected them to the passage of the galvanic current from a Stöhrer's battery, needles being inserted into the aorta. A number of dogs, small and large, were used in these tests, and many different operative procedures employed.

The conclusions (in a general way) arrived at were, that gold was the best metal from which a needle could be constructed, as it gave a clot with a less number of cells in less time than did the other metals used.

That a black adherent clot formed inside a vessel around the positive needle, unless the current of blood flowed too rapidly; that this needle remained tight in the vessel wall, and bleeding did not take place when it was withdrawn: and that the living membrane of the vessel was somewhat acted upon.

Around the negative needle, on the contrary, no clot could be found; the vessel wall was equally acted upon at the point of puncture, but the needle was loose, and bleeding followed its withdrawal.

Gold needles were tried upon the patient, but bent in the efforts to force them through the skin; consequently steel needles, gilded at the points, were used. Insulation was effected by a coat of hard rubber, which is very easily applied with a little heat, and is preferred by Dr. Keyes to shellac.

Four operations were performed. Hollow needles were employed in the first two, afterwards solid needles were used.

In the first two operations the needles were one millim. thick, two inches long, one-half inch non-insulated. They were introduced until blood flowed freely through them. The passage of the current soon caused the flow of blood to cease. The needles employed in the last two operations were solid, four inches long, one and one-half millim. thick. One needle was used in the first operation, two in the second, six in the third, and eleven in the fourth. The positive current only was passed through the needles, the negative electrode being placed near by on the skin. From eight cells to thirty-three cells Stöhrer were used, two batteries being employed in the last two operations. The time varied from ten minutes at the first operation, to one hour and five minutes at the last.

After each operation the walls of the sac became firmer, and the patient improved in appetite and absence of pain. Finally, only one sound could be heard over the tumor, and that a very faint one, and it was thought that possibly the patient might get out. She regained at one time sufficient strength to dress herself. Strength, however, began to fail in June, and on July 18th she died.

Only very slight and strictly localized peritonitis was caused by the introduction of the needles.

The specimen consisted of the heart and aorta to its bifurcation. The heart was very small, with great hypertrophy of the walls of the left ventricle. Valves all healthy. The whole lining membrane of the aorta showed signs of chronic inflammation, and there was a small amount of atheroma in patches. Three aneurisms were found, one posterior, saccular, from the innominate, just at its point of origin from the aorta. This was twice as large as an English walnut, and perfectly solid, filled with a firmly organized clot. The second aneurism (11 inches circumference) was a posterior saccular aneurism of the aorta, opposite the sixth and seventh dorsal vertebræ. The posterior wall of the aneurism was gone, the clot softened at this point, and the bodies of the two vertebræ eroded nearly down to the canal. The rest of the sac was entirely filled with a firmly organized clot. These two aneurisms had never been detected during the patient's life—nor had they indeed been sought for. They never gave rise to any uneasiness, and the other aneurism was so large that it absorbed all the attention. The patient never had any pain in the back,—a curious fact, considering the amount of inflammation around the second aneurism.

The abdominal aneurism was found to involve the superior mesenteric, and the front wall of the aorta at its root. It was about three-quarters filled with a firm fibrinous clot. A central cavity persisted, through which blood ran to the superior mesenteric. There was no appearance of concentric striation about the points of puncture of the needles to indicate any special action there. The peritoneal surfaces at the points of puncture were more or less adherent, according to the date of the puncture.

Dr. Keyes stated, in conclusion, that it was fortunate in this instance that the other aneurisms existed. Had this not been the case, the coagulation in the abdominal aneurism would have been set down to the effect of the galvanism. As it was (from the fact that the other two aneurisms were much more firmly consolidated than the one operated upon, although indeed the latter only was in the direct course of the arterial current), Dr. Keyes was unwilling to decide whether the solidification which progressed with the operations was an effect of them or a simple coincidence. He was confident, however, that the operations had done no harm, and thought that further operations upon abdominal aneurisms were justifiable.

Dr. Keyes stated further that his case was the first where abdominal aneurism had been operated upon (as far as he could discover), except the case of Del Acqua's, published in an Italian journal, where the patient died on the table from rupture of the sac; and that his case had proved, what had not before been demonstrated, that a number of pretty large needles might be thrust through both coats of the peritoneum, and a considerable amount of electricity passed through them without exciting general peritonitis.

Dr. Flint did not think, from what had been shown in Dr. Keyes's case, that galvano-puncture was the best means of curing aneurisms. It appeared that the clot thus formed was soft and uneven, and liable, in case of any extra disturbance of the circulation, to be broken up and to discharge portions in the general current of the blood, thus inducing thrombi.

Dr. Weir remarked that the Italian surgeons who had reported cures of the aneurisms, had used voltaic batteries of not very great power, the intention being to form only a small clot as a nucleus which should attach itself to the walls of the sac. He also referred, in this connection, to a case of aneurism of the temporal artery which he had cured in that manner, by using, as did the Italian surgeons, both the positive and negative poles.

EXTENSIVE DESTRUCTION OF FOOT—AMPUTATION.

Dr. Hewit presented some of the bones of the foot removed in an amputation. The history of the case was as follows:—Wm. Walsh, aged 16 years, fell from a shed into a paved court, distance 19 feet, producing compound comminuted fracture of the tibia, extending into the ankle-joint, and fracture of the fibula, at the junction of its lower and middle thirds, of the right leg, and fracture of both bones of the right forearm.

I saw the case shortly after the reception of the injuries, in consultation with Dr. Daniel C. Comstock. The tibia protruded three inches from the inner side of the leg, and had produced a rent in the muscles and integument about three and a half inches in length.

The first proceeding was to etherize the boy and saw off the roughened and ecchymosed end of the bone. The examination, which was thus facilitated, enabled me to recognize the amount of injury and the implication of the joint. In view of all the conditions I advised immediate amputation, to which the father of the boy consented, and the operation was performed on the spot by an oblique incision, including the rent caused by the tibia in the flaps. The edges were closed by silver sutures, the arteries having been secured with silk ligatures, and the external dressing applied of a simple bandage wet with glycerine containing five grs. carbolic acid to the ounce. Primary union has taken place and the stump has almost entirely cicatrized. The edge of the tibia was bevelled with the saw. The fractures of the bones of the arm have united, leaving the movements of the wrist and arm unimpaired. I used for the arm the splint which I have devised for those injuries, and which I intend to bring to the notice of the profession.

I am indebted to Dr. Darkin for able assistance in this case, and to Dr. Comstock for his intelligent conduct of the treatment and subjoined report of the dissection of the specimen.

Foot after amputation was found to be as follows:—Tibialis posticus, flexor longus digitorum, flexor longus pollicis, were filled full of comminuted bone from the size of a pin's head and finer up to that of a pea, and the former was bruised in the muscular part to a jelly; the posterior tibial artery intact, but its comites lacerated, especially the anterior; so also were almost all the veins around the joint. Blood was extravasated around the joint, also beneath the plantar fascia, the flexor brevis digitorum, and adductor pollicis, and abductor minimi digiti, the plantaris and deep fascia, and the inner and outer sides of the foot and also of the joint itself, all as far forward as the outer border of the scaphoid; less on the dorsum than beneath. The tibia was found to be split off from the epiphysis in the centre, the enlargement of the head being split off anteriorly and inwards from below upwards, posteriorly and outwards, the vertical fracture running anterior and outwards to posterior and inner surface of tibia. The epiphysis was separated from the fragments and the articular cartilage, and a fracture opening into the joint from the anterior outer to the posterior inner surface. The pieces above the articular cartilage were badly comminuted, as the specimen will show. Highest point above inner malleolus of lower fragment is two inches. The fibula was broken off square across, four inches above external malleolus; no fracture of head of this bone. The anterior ligament split from above downwards by strain on spreading of malleoli; the posterior lower inner point of posterior tubercle of os calcis fractured and entirely separated from rest of bone; lower

tibia-fibula articulation entirely separated. Tibia-fibula astragaloid articulation partially dislocated. The sheaths of tendons internally and externally were filled with a cero-sanguinolent liquid.

DEFICIENCY OF DIAPHRAGM—ONE OF THE CAUSES OF DEATH IN THE NEW-BORN.

Dr. Van Geison presented a still-born infant, from a lady of middle age, two of whose children were likewise born dead. Her labors were marked by the peculiarity of being extraordinarily rapid, lasting on the average only three minutes. The doctor was called to her second child two minutes after it was born. Artificial respiration was tried for fifteen minutes, but without any good result. No autopsy was made in that case, the presumption being that there was some malformation of the heart. The last labor was comparatively a long one, lasting full forty-five minutes, and on that occasion an opportunity was given the doctor to be present. When born the infant was almost black. The cord was cut immediately, and it was allowed to bleed as much as it would, which, by the way, was not more than a couple of ounces. Despite every effort the child lived but sixteen minutes. Feeling for the heart he discovered that it was situated on the right side, the apex beating in the fourth intercostal space. On opening the child the central portion of the left half of the diaphragm was deficient, and with the exception of the lung, which was in a state of atelectasis, the chest cavity was occupied by the left lobe of the liver, and by a portion of the stomach and intestines. The liver was of course transposed. The heart was discovered on the right side in the same relative position it should have occupied on the left. Dr. Van Geison presented the specimen on account of its extreme rarity.

Dr. Janeway said that he had met with a similar case.

Dr. Flint remarked that Dr. Bowditch, of Boston, had collected and published about fifty such cases. In several of them life was prolonged a considerable length of time, and in one the adult age was reached, the diagnosis having been made by Dr. Bowditch before death.

Dr. Jacobi stated that in the large majority of the cases met with, the deficiency of the diaphragm was in the central portion of the left half. In all, the fœtal life was not interrupted, and it was not until the function of respiration was called into play that there was any particular danger.

THE CAUSE OF PERFORATING ULCER OF STOMACH.

Dr. Janeway presented a stomach taken from a patient 34 years of age, single, and admitted to Bellevue Hospital September 30th, 1870, in the service of Dr. McCready.

Her history, briefly stated, was as follows:—Five years ago she had hæmoptysis; two years ago she suffered from fits of vomiting and pain in the head; one year ago she had relapsing fever; two months ago became weak, and unable to do her work; three weeks ago had a chill lasting ten minutes, followed by fever, vomiting, and diarrhœa. She vomited ever since that time, and was obliged to keep her bed. When admitted to hospital was very weak, and vomited blood occasionally. October 5th, she suffered from great pain in the abdomen, which became tympanitic. October 6th, pain increased by food intense, and limited to epigastric zone. The pain continued, and death occurred on the 9th day of October.

Autopsy.—Lungs.—Retraction, fibrous induration, and cheesy nodules affected each apex.

Abdomen.—A sac containing air, and a sour-smelling, black-colored fluid, with a slight amount of pure solid contents, evidently ingesta from stomach, was situated in the epigastric and left hypochondriac region. Its boundaries were a broad ligament of liver, the edge of the left lobe of liver adherent to abdominal wall by recent exudation, a portion of pyloric end of stomach also adherent, and the diaphragm.

Liver.—Enlarged, fatty, and its left lobe covered by recent exudation.

Stomach.—A little over half an inch from the pylorus, and situated along the greater curvature, is a circular opening in the walls of the stomach, one inch in diameter. This opening was closed to a certain extent by this round piece of stomach wall, which exactly fills the opening when stretched. It was black-colored and evidently dead tissue, retained in position by some slight attachments of the sub-peritoneal fat, which had a peculiar macerated appearance. The mucous membrane for half an inch around the ulcer had been destroyed, the sub-mucous connective tissue and muscular coat being laid bare. Beyond this point, towards the cardiac extremity of the stomach, the mucous membrane was of a blackish color from hemorrhage, coated and infiltrated towards the outer part also by recent exudation (fibrinous). These changes include the entire circumference of the stomach for a distance of three inches.

An examination of the gastro-epiploic artery showed a distinct fibrinous plug, oblong, about one-eighth of an inch long, blocking the end of artery towards spleen, and this fibrinous plug prolonged by a tapering black thrombus of different date. In the necrosed portion of stomach the artery ran through fat tissue, was pervious to a bristle, but contained a macerated clot. The portion of artery towards pylorus was permeable.

This case, then, is one of those rare ones in which we are enabled to see a necrosed portion of the stomach wall, and a fibrinous plug looking very much like an embolus (though there was no point to which it could be traced) blocking its nutrient artery. The other organs were healthy, with exception of some evidences of peritonitis on the small and large intestines.

RELIEF COMMITTEE FOR MEDICAL PROFESSION OF CHICAGO.

The committee met, pursuant to adjournment, at the office of Dr. Hamilton, Oct. 21. Present—Drs. F. H. Hamilton, E. S. Dunster, E. Eliot, G. F. Shrady, G. M. Smith, F. A. Burrall, J. C. Peters, S. T. Hubbard, Fairbrother, B. Howard, Werner, and C. H. Packard.

The treasurer, Dr. Hubbard, reported that he had, in accordance with the directions embodied in the circular from the physicians in Chicago, sent a certified check of two thousand dollars to Dr. Walter Hay, of that city.

Dr. Shrady asked if any information had been received from the physicians in Chicago other than that contained in the circular referred to, and being answered in the negative, stated that since the previous meeting he had heard from Dr. N. S. Davis, of Chicago. That gentleman had informed him that the handsome contributions received from New York, St. Louis, and Cincinnati would probably relieve the present pressing wants of the needy physicians, but that much more would be required to place them in comfortable circumstances during the coming winter.

Dr. Eliot offered the following:

Resolved, That the following statement be sent to the medical journals for publication, after having been signed by the members of the committee.

The undersigned have been appointed by the physicians of New York City an executive committee to receive money from the medical profession for physi-

cians and medical students in Chicago and other places in the Northwest, who are destitute in consequence of the recent fires. The plan of collecting the necessary funds is to ask a subscription from every physician in New York City. They recommend that similar action be taken by the medical profession in other parts of the country. The committee intend to continue their meetings during the winter, and longer if necessary.

Dr. Dunster remarked that at the previous meeting he had suggested the practicability of the medical journals appealing to the profession for aid, and that he had been informed that the Medical Record had already done its part in bringing the matter to the notice of its readers.

Dr. Shrady, in answer to a question, remarked that the forthcoming number of that journal contained a full report of the proceedings of the committee, together with an editorial appeal to the profession throughout the country, and such other information as he had been enabled to gain from correspondents.

After some further discussion, it was concluded that a general circular be prepared, which should be published in all the medicaljournals throughout the United States.

After a desultory conversation in regard to the best means to be adopted to communicate with the suffering medical men of the Northwest, it was agreed to do so through the secular papers.

The treasurer reported that he had deposited four thousand seven hundred and thirty-seven dollars, and that it had been thought best by the sub-committee to reserve one thousand dollars for the sufferers of the Northwest.

The committee then adjourned.

The committee met at the appointed hour, Oct. 28. Present—Drs. Hamilton, S. E. Taylor, Eliot, Hubbard, Peters, Dunster, Jacobi, Burrall, Hahn, and Castle. In the absence of Dr. Purdy, Dr. Dunster was appointed Secretary *pro tem.*

A communication from Mr. B. L. McVickar, Corresponding Secretary of the Chicago Relief and Aid Society, to Dr. E. Delafield, of this city, was laid before the committee by Dr. E. Eliot. This communication detailed several sad cases of necessity among the physicians of Chicago, and asked that some provision might be made for them.

Dr. Eliot moved that Mr. McVickar be informed by the Secretary that the letter written by him to Dr. Delafield had been referred to this committee, and is now on file among their papers, and that the cases alluded to would receive assistance if they will apply either in person, or through Mr. McVickar, to Dr. Walter Hay, Secretary of the Medical Relief Committee of Chicago, to whom our funds have been and will further be sent.

Carried.

A letter from Dr. Walter Hay, Secretary of the Medical Relief Committee of Chicago, acknowledging receeipt of check for two thousand dollars, and thanking the profession of this city for their noble charity, was read and ordered on file:—

No. 384 Michigan Ave., Chicago,
Nov. 3, 1871.

Yours of the 1st inst., containing certified check for $2,000 for the relief of our suffering physicians, is just received. In the name of the committee and the beneficiaries of your noble charity, permit me again to tender you our most grateful acknowledgments.

Your former donation (together with the aid extended to us from our professional brethren in St. Louis and Cincinnati) has enabled us to relieve the most pressing needs of fifty-three physicians. Our list of applicants up to to-day numbers ninety-eight, and new names are daily added to the list.

We have divided our list into three sections, viz.: Those known to be irregular, or if regular, disreputable, we have rejected, and referred to the General Relief and Aid Society. Those not well known to us personally or by authentic reference have been reserved for investigation. Those whose character and condition were well known have been relieved immediately.

This relief list we have classified into three subdivisions: 1. Men with families who have lost both residence, office, and practice, to whom sums of $50.00 each have been voted. 2. Those whose offices alone have been destroyed, to whom we have awarded sums of twenty-five dollars respectively; and, 3d. Single men and young men without dependants, to whom sums of ten dollars have been assigned. We have been able to duplicate these sums in some instances. This has enabled us to relieve fifty-three, and your last handsome donation will permit us to extend our relief list largely.

As it would be impossible to comprehend the magnitude of this calamity, it is equally impossible to imagine the courage with which our professional brethren meet it. In three different instances men who have grown gray in the profession and attained some of its highest honors, have asked, before accepting a check, "Is there not some one who needs this more than I do?" In one case a white-haired professor, who has lost many thousands, indeed his all, but had secured an appointment as District Physician, to attend the poor at fifty dollars per month, said to me: "I will accept no more aid, I have now *an income.*"

I write immediately to Wisconsin and Michigan for information, regarding the sufferers there, and will write to you as soon as I receive replies.

Very truly yours,
Walter Hay, M.D.

S. T. Hubbard, M.D.,
No. 27 West Ninth St., New York.

A statement, to be published in the daily papers and medical journals, concerning the action of the Physicians' Relief Committee of this city, was read by Dr. Hamilton, and approved by vote of committee (see page 430).

The Treasurer reported the receipt of $5,437.91, and that $4,000.00 had already been sent to Chicago.

Adjourned.

Correspondence

THE EFFECTS OF CUNDURANGO.

To the Editor of the Medical Record.

The following facts bear upon the subject of the curative powers of cundurango in cancer. If you think the communication will be useful to your readers it is at your service.

Mrs. B., aged 38, was for nine months a patient of Dr. L. Weber, of New York City. She had been seen several times during that period by Dr. Noeggerath in consultation. These gentlemen diagnosticated uterine cancer. Upon removing to the country for the summer the case came to be mine. Dr. Weber saw her with me several times. There were great emaciation, obstinate nausea and vomiting, constipation, abdominal

pains, enlarged inguinal glands, etc., etc. During the attendance of Dr. Weber she had profuse hemorrhages, which had been arrested before I first saw her. On May 29th and 30th she had twenty-three uræmic convulsions. The hypodermic use of morphia with ice to head acted very satisfactorily in this instance. She recovered from the eclampsia, and for a period of three weeks her condition improved daily, her appetite returning, the abdominal pains disappearing, vomiting and constipation being much less troublesome. This amelioration of her symptoms led the family and friends to feel doubtful as to the correctness of the diagnosis. Dr. Thomas was then called in consultation. The previous diagnosis was confirmed by him, and the unwelcome opinion stated to the husband.

Soon after this interview Mr. B. and myself read of the astonishing powers of cundurango, and made strong efforts to obtain some of it. We failed, and were disappointed when told that none could be had before about August 15th.

By dint of great perseverance Mr. B. succeeded in getting hold of what was told him to be "the last quarter-pound to be had in the city." For this he paid $25, receiving a receipt for that amount from "Bliss, Keene & Co., Dealers in South American Drugs."

The remedy (?) was used strictly in accordance with the directions given in the printed circular of the above firm, until the patient died; fifteen days after commencing the use of the cundurango infusion.

The patient, at the time of first taking the drug, was slowly dying from inanition. The stomach rejected nearly everything put into it, and all nutriment was strongly loathed. The cundurango infusion was well borne by the stomach, none being vomited soon after its ingestion. No other effect, attributable to the use of cundurango, was observed.

T. Blanch Smith, M.D.

Nyack, N. Y., Oct. 20, 1871.

BENZOIC ACID OINTMENT FOR THE RELIEF OF ANAL FISTULA.

To the Editor of the Medical Record.

Sir—The Medical Record for March 15, 1871, contains an account by Dr. Edward C. Huse, of Rockford, Ill., regarding the treatment of anal fistula by injecting the ethereal tincture of iodine, from which I have also seen the most satisfactory results.

The profession should be further informed that a plan of treatment equally effective and more simple in its application is that of inunction by benzoic acid ointment. It has been particularly useful in inaccessible blind fistu'æ.

The writer has given it a fair trial in several cases of commencing fistula in ano, as well as in those more completely formed, and has recently used it in his own case when it also resulted in perfectly healing the parts, although the sphincter was exceedingly irritable, and the fistulous opening located just within the anterior verge of the anus.

Around the internal opening there was the usual cartilaginous tissue; and from this point there also extended up the rectum an ulceration of the rectal mucous and sub-mucous tissues. The whole was most acutely sensitive.

The ointment of benzoic acid was used every night, by making a digital application, when it was assured that the unguent was made to cover the whole ulceration and enter, under pressure, the fistulous opening. Within one month I have been gratified to see a fistula of six months' standing entirely relieved.

The ointment I use in the following proportions, adding acetate of morphia to quiet irregularity of the sphincter, viz.: Benzoic acid, ʒij.; Acet. morph., gr. vj.; Simple cerate, ʒj.; Glycerine, q. s. to soften if required. There is an immediate feeling of relief upon its application, and I earnestly recommend its use to those who do not care to resort to the various operative procedures, and when the patient's own finger will accomplish the same end. It is well, also to remember, that persons of a sensitive nature often object to the knife, and prefer allowing the incipient fistula to run on, until the pain is too distressing to be longer endured, while they would willingly make use of an ointment persistently as directed.

B. F. Gibbs, M.D.,
Surgeon U. S. Navy.

New Orleans, La., Oct. 28, 1871.

THE CONSTRINGING INFLUENCE OF ERGOT ON THE CAPILLARY BLOOD-VESSELS.

To the Editor of the Medical Record.

Sir—The reviewer who, in the number of the Medical Record for Oct. 2d, 1871, did me the honor to criticise my treatise on Diseases of the Nervous System, has—unintentionally, I am sure—done me injustice.

He expresses his amazement that I should claim to have been the first to demonstrate the constringing influence of ergot over the capillary blood-vessels.

If he can refer to any experiment on this subject of prior date to mine detailed in the *American Medical Times* of June 15th, 1861, I will very willingly admit that my claim is unfounded.

I have never asserted that I was the first to use ergot in spinal congestion, but merely that I was the first to *demonstrate* its action on the blood-vessels by experiments on living animals.

The reviewer kindly states that there is not a muddy sentence in my book. I think that if he will again read the passages in question, he will perceive that they are clear as to the point involved.

Very respectfully,
Your obedient servant,
William A. Hammond, M.D.

162 W. 34th st., Oct. 28, 1871.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from October 19, 1871, to November 4, 1871, inclusive.

McKee, J. C., Surgeon.—By S. O. 223, Department of the East, October 18, 1871, granted leave of absence for thirty days on Surgeon's certificate of disability.

Tilton, H. R., Assistant Surgeon.—By S. O. 223, current series, Department of the East, assigned to temporary duty at Fort Wadsworth, N. Y. H., and to rejoin his proper station on return of Surgeon McKee.

Mackin, Chas., Assistant Surgeon.—By S. O. 81, Mil. Div. of the Mo., Nov. 1, 1871, granted leave of absence for sixty days.

Hall, J. D., Assistant Surgeon.—By S. O. 232, Department of Dakota, October 21, 1871, assigned to duty at Fort Benton, Mon. Ty.

Dr. Mary C. Putnam, now of this city, has been elected a member of the New York Pathological Society.

Medical Items and News.

Dr. N. S. Davis.—We are glad to learn that Dr. Davis, of Chicago, did not lose his dwelling nor office during the recent fire in that city, although a fine building owned by him, and situated in the business part of the city, and which yielded a handsome rental, was entirely destroyed.

The Medical Profession of Chicago.—Exchanges will please publish the following circular:—

TO THE MEDICAL PROFESSION OF THE UNITED STATES.

The terrible calamity which has recently fallen upon the city of Chicago and upon various portions of the Northwest, has awakened the sympathy of the world, and both money and material have been sent to the suffering districts with an abundance and alacrity which has never before been witnessed; but no one who has considered the extent of the losses, or the amount of suffering entailed, can feel any apprehension that the work of charity is likely to be overdone, nor, indeed, that it will be possible to fill the measure of the actual want. There ought to be no relaxation in these general measures of relief for many months to come, nor is it probable that there will be; but there is one class whose misfortunes appeal most especially to the members of our profession. More than a hundred physicians in Chicago, and probably as many more in other portions of the Northwest, have lost all they possessed. The intelligence received by us, from trustworthy sources, is of the most painful character; and it is with reluctance that we make public the fact that up to this moment seventy-seven physicians in Chicago alone have been driven to the necessity of placing their names upon the list of those requiring pecuniary aid. God forbid that we should delay to give them help. We beg you to reflect that the situation of these physicians, with their families, is peculiar. The laborer may find immediate employment at his usual wages; the merchant may buy and build upon his credit; the clergyman has his congregation, much less able to pay than formerly, but nevertheless responsible for his support. The physician has ordinarily none of these resources. With neither house nor furniture, horse, carriage, nor instruments, he must do what little he can, and wait the slow returns from a population reduced, like himself, almost or quite to beggary. Our calling is never a lucrative one, but in Chicago to-day it can hardly be expected to supply the necessities of life, and perhaps not for a year to come.

In our opinion these seventy-seven doctors, and probably as many more, will need from $500 to $1,000 each to carry them safely through the year, and to put them once more upon their feet. From $50,000 to $80,000 is our lowest estimate of what should be sent to the Chicago doctors' relief fund; with this money they may be placed upon salaries, and in return perform such public services among the sick and poor as may be required.

We have already received from the physicians of New York over $5,000, of which sum $4,000 has been sent to Chicago. The remainder is retained for the purpose of aiding the physicians of Wisconsin and Michigan, and will be forwarded to Chicago or elsewhere as soon as we receive information as to where it is especially needed. Many of the other large cities have sent in similar contributions. We have no means of knowing how much has been contributed, but we have no doubt the sum is totally inadequate to meet the exigencies of the case. It is proposed, therefore, to continue the organization of the Committee, and not to cease efforts during the winter, unless its services should seem to be no longer required.

To physicians living in scattered districts we take the liberty of suggesting organized action through county or other local associations. Those who prefer can send their contributions direct to Walter Hay, M.D., Secretary of the Chicago Medical Relief Com., No. 384 Michigan Av., Chicago; or to the Treasurer of this Committee, Samuel T. Hubbard, M.D., No. 27 West Ninth Street, New York. We earnestly hope that no physician in the United States will omit to contribute something, however small the amount may be, to this charity—in any way and through any channel they may choose—but that they all give, and that speedily. If our medical brethren knew only a few of the examples of individual suffering which have come to our knowledge, but which we do not feel at liberty to publish, their contributions would not be delayed.

Surgical instruments may be sent to the following surgical instrument-makers in this city, by whom they will be forwarded free of charge: George Tiemann & Co., 67 Chatham street; Darrow & Co., 1227 Broadway; Otto & Reynders, 64 Chatham Street; Shepard & Dudley (formerly Ford & Co.), 150 William Street; Stohlmann, Pfarre & Co., 107 East Twenty-eighth Street.

Books will be received and forwarded by Wm. Wood & Co., No. 27 Great Jones Street.

It may be necessary to add in explanation of the diversion of a portion of the funds originally intended only for the physicians of Chicago, that the probability of an appeal from the physicians of the burnt districts of Michigan and of Wisconsin determined the Committee to reserve a small portion for such an exigency: and further, that in consideration of the fact that the medical students of this city have given very liberally to this fund, it was determined to suggest to those having in charge the distribution of these charities, that they will not overlook the claims of medical students who may in the same manner have been left destitute.

Frank H. Hamilton, M.D., *Chairman.*
Alfred E. Purdy, M.D., *Secretary.*
Samuel T. Hubbard, M.D., *Treasurer.*
Geo. F. Shrady, M.D.,
Chas. McMillan, M.D.,
Ed. S. Dunster, M.D.,
A. Underhill, M.D.,
John C. Peters, M.D.,
F. A. Castle, M.D.,
F. A. Burrall, M.D.

The Roosevelt Hospital, so long in course of construction, was opened for the reception of patients on the 2d inst., with appropriate ceremonies, a large number of gentlemen and ladies being in attendance.

The founder, James Henry Roosevelt, was a native of this city, of Dutch descent, and at the time of his death on the 30th of November, 1863, was 63 years and 20 days of age. He was a graduate of Columbia College, and a lawyer by profession, although he never practised to any considerable extent.

In his will the founder of the institution set apart about $900,000 worth of property for a public hospital, to be erected under the auspices of gentlemen named. The trustees have delayed the work until, by the accumulation of interest, the amount at their disposal has reached a million and a quarter of dollars. Dr. Stephen Smith, Commissioner of Health, and the accomplished

architect, Carl Pfeiffer, were instructed to examine the hospital system of the States, and the result of their researches and study, aided by the suggestions of the trustees, is the present superb building upon the "Pavilion plan," now generally acknowledged to be the best, as affording the most sunlight and air.

The following description we take from the columns of *The New York Herald:* "The entire plan comprises four pavilions, or separate buildings, each being a hospital in itself. An open space or court-yard of 90 feet is between the pair of these buildings, at each end, and the space between these in the centre is 180 feet, which is, however, partly used by the administrative building, or that which will contain the offices and apartments of the officers, also the amphithéatre or lecture-room, some private patients' rooms, and two small associate wards on the upper floors for female patients. In the rear of the administrative is the kitchen and laundry building, containing also the bakery, engine and boiler, and other rooms. At a considerable distance from the hospital buildings is a mortuary building, divided into rooms for curator, laboratory, lecture or autopsy room, dead and coffin room, pathological museum, and a keepers' room. Near the mortuary building are to be erected the future stable, carpenter and other shops, and carriage sheds;" the entire space occupied by the hospital being about 200 by 300 feet, and bounded by Ninth and Tenth Avenues, and Fifty-eighth and Fifty-ninth streets.

"One of the 'pavilions' is entirely complete and ready for occupancy. It has a cellar, basement, and three stories above the latter. In each of the three upper stories is a ward or dormitory 30 feet wide by 106 feet long, and 15 feet high: each ward is to contain twenty-eight patients; each patient will, therefore, have over 1,700 cubic feet of air space. In addition to these wards are a few single rooms for particular cases, or private patients who pay liberally for accommodations. Each floor or ward has also a nurse's room, ward kitchen and scullery, convalescent dining-room, lavatory or wash-room, a steam drying-room for mattresses, water-closets, slop-sinks, and other accessories; also steam vapor-baths. The toilet-rooms are arranged differently from the usual way; instead of placing them against the walls they are placed in the centre of the room and grouped around a shaft, which extends through all the stories, cellars, and basements. This shaft answers two purposes—as the plumbers' and steam-heating pipes are placed within it, it affords facility for reaching them readily, if need be, and secondly, the shaft acts as a ventilator by conveying off impure air. For thoroughly cleansing and disinfecting these necessary appurtenances, a 'modern improvement' has been introduced, and, perhaps, it is the first instance of it. Each toilet is so contrived that steam can readily be injected into it, and in this way thoroughly steamed, cleaned, and disinfected. There is also a shaft extending from the basement to the upper story, as a receptacle for the soiled linen from each story, which lessens the labor of the attendants by not requiring them to carry it up and down stairs; and as all the soiled linen is dropped into one shaft and falls to the bottom of it, into an especial place for it, the laundry-maids always know where to find it. The clean linen for each story is conveyed by dumb-waiters communicating with each linen room.

"An additional labor-saving contrivance are the dust flues which are numerously distributed over the building in all the rooms, halls, and passages. On a level of each floor the dust and rubbish can be swept into a flue formed of glazed pipe, twelve inches in diameter, and terminating in the cellar into an iron receptacle, whence all can be removed readily to the boiler furnace and burned. Each ward is also furnished with outlets in several places for hot and cold water to supply a portable bath for patients who are too feeble to be taken to the bath-rooms. At each end of the building, and on each story, large fire-hose are provided and constantly attached, ready for use in case of fire; also in each court-yard is a fire-plug with hose attached, so as to force water upon any part of the building, if need be. The fire-plugs are supplied with water from the tanks within the buildings; but all the hose are also connected with a powerful steam pump and engine in the boiler house. An additional precaution against fire, and affording safety for patients, is a spacious fire-proof (stone) stairway. For patients who are too weak to ascend a stairway, a steam elevator has been provided, which also affords an additional convenience for the officers and attendants. In the basement of the pavilion are offices, accident, ophthalmic, and single wards, with auxiliary rooms, as on the upper floors. In all, the pavilion will accommodate about one hundred patients. Each pavilion also has apartments for one or two physicians. The cellar is mostly used for air-ducts and heating apparatus, which is done by conveying a constant supply of fresh air over coils of steam pipe, and reaches the rooms in a heated degree sufficient to warm them. The fresh air is taken at a height of sixty feet above the surface of the ground, so as to get it pure and free of dust. A tower or shaft of this height, and twelve feet in diameter, was built especially for this purpose. It is open on the top, where the fresh air descends to the cellar, and to the air-chambers containing the steam coils. The ventilation is so abundantly provided for that it cannot now be described. Each gas-light, even, has a ventilating flue to carry away its combustion, by which the atmosphere of the room would otherwise be vitiated.

"The building is provided with four different systems of ventilation. First, the natural ventilation of opposite windows and other contrivances. Second, ridge ventilation, the foul air being conveyed under the ridge of the roof and there finds escape. Third, and principally, by a ventilating chimney 130 feet high and 16 feet in diameter, inside measure. This chimney has an inner one of iron, like a smoke-pipe of a large steamboat. This smoke-pipe receives the smoke of four large boilers, also all the smoke from the kitchen, bakery, and laundry. The smoke and heat from the boilers is enough to heat the outer chimney, so as to attract all the foul air from the ducts and flues connected with it from all the buildings, and here escapes."

"These three systems are in successful operation. The fourth system is that of a fan, which is not yet provided, but can be introduced at any time. As an additional provision for purity of atmosphere, the walls and floors have been covered with four coats of oil paints, so as to present a surface which cannot absorb impurities and which can be washed with soap and water. Near the beds of the patients are also flues with doors, as a temporary receptacle of necessary articles used in a sick-ward which might prove offensive. One pavilion is in course of construction which will only be one story in height. It is especially designed for surgical patients. It will have a ward 130 feet long, 30 feet wide, and 20 feet high. The exterior view is very pleasing to the eye, and the architectural beauty of it was much admired. The roofs are Mansard, and are surmounted by towers of artistic design.

"The kitchen is a model of neatness and efficiency. It is 78 feet by 68 feet, and includes laundry, wash-room, ironing-rooms, drying-rooms, etc., on the main floor. It is supplied with steam power, washing and mangling

machines, an immense larder, capable of holding ten tons of ice and meats. The range is fourteen feet long, and over it is a canopy to catch the odors and convey them off to the pipes. This structure, which is in the rear of the main pavilion, is so ventilated that the employés will not be subjected to extreme heat or any inconvenience. As yet but two pavilions—those on the east side—are complete. They will accommodate about one hundred and fifty patients, who will receive every comfort, including bath-rooms, wardrobes, and closets on each floor. The main or central pavilion is completed exteriorly, but not interiorly.

"The trustees propose to complete the other two pavilions so soon as the appropriation increases to such a sum as warrants it, as it is not intended to use any of the original endowment upon the building, but to leave it as a reserve for the maintenance of wards for patients who are unable to pay for treatment."

The following are the officers of the institution :—

Trustees—George T. Trimble, Frederick E. Mather, Edwin Clark, Ed. Delafield, Augustus Schell, John M. Knox, Royal Phelps, James E. Roosevelt, Adrian H. Muller.

Officers of the Board of Trustees—President, Dr. E. Delafield; Vice-President, A. H. Muller; Treasurer, George T. Trimble; Secretary, John M. Knox; Finance Committee, Edwin Clark, Augustus Schell, Royal Phelps; Building Committee, Ed. Delafield, George T. Trimble, and A. H. Muller.

Medical Board—Consulting Physicians, Drs. Alonzo Clark, John T. Metcalf, Willard Parker. Attending Physicians, T. Gaillard Thomas, William H. Draper, Francis Delafield, Robert Watts, Thomas M. Markoe, H. B. Sands, Erskine Mason, and Robert F. Weir, Pathologist, Francis Delafield, M.D.

Officers of Medical Board—President, Alonzo Clark; Vice-President, T. M. Markoe; Secretary, Robert Watts.

Committee of Inspection—Drs. Draper and Weir.

Committee on Examinations—Drs. Sands, Watts, and Delafield.

Superintendent—Dr. Horatio Paine.

House Physician and Surgeon—William H. Schuyler, M.D.

Matron—Harriet B. Hudson.

The hospital is now open for the reception of about one hundred and fifty patients; but when completed it will easily accommodate 400.

American Microscopical Society of the City of New York.—Annual election held October 24th at the Mott Memorial Building, 64 Madison Avenue, as follows:—*For President*, F. A. P. Barnard, S.T.D., LL.D.; *First Vice-President*, J. E. Gavit; *Second Vice-President*, H. G. Piffard, M.D.; *Recording Secretary*, J. W. S. Arnold, A.M., M.D.; *Corresponding Secretary*, R. A. Williams, Jr., A.M.; *Treasurer*, E. C. Bogert; *Curator*, Samuel Jackson; *Librarian*, J. H. Cornell; *Trustees*, T. F. Harrison, C. Van Bunt; W. H. Atkinson, M.D., D.D.S.; S. G. Perry, D.D.S.; D. H. Goodwillie, M.D., D.D.S.

Livingstone.—The *Indian Post* brings the news from Zanzibar that Doctor Livingstone has been heard from as being on the west side of Lake Jauganyika, from which place he has sent messengers to Ujiji for provisions. A young American named Stanley has gone by forced marches to Ujiji to join the illustrious traveller.

A New Medical Journal has been started in Lisbon, named *O Correio Medico*, of which Drs. Aves Branco and Silva Amado are editors.

Cholera has ceased in Hamburg, is on the decline in Königsberg and Stettin, and is reported to be practically at an end in Constantinople, where the total number of fatal cases was about 150.

Yellow Fever still continues at Charleston and Key West, and vessels from these ports are quarantined in our harbor.

Small-pox in Philadelphia had, up to the first of this month, caused the death of 293 persons; the total number of cases for the year thus far having been 1,647.

The Deatus from Yellow Fever in Buenos Ayres during the last three months of the epidemic are estimated at 26,000.

Schweigger-Seidel, the eminent histologist of Leipzig, is dead.

Anna Volkow.—At the meeting this year of Russian naturalists at Kiew, the section of chemistry was presided over by a lady named Anna Volkow.

Lady Students.—The much-talked of trouble between the lady students of the University of Edinburgh and the governing body bids fair to be brought somewhat nearer to an end by the marriage of some of the female element.

New Prize.—The Academy of Medicine of Turin has announced a new prize, under the name of the *Premio Bianco*, which will be given in the beginning of 1873. The value is 1,000 francs; the subject is "Matrimonial Hygiene." All manuscripts are to be sent in before December 31st, 1872.

Ophthalmic Society of Heidelberg.—The next meeting of the Ophthalmic Society of Heidelberg is to be held next August, in London.

Death of an Alleged Curer of Leprosy.—Dr. Beauperthiny, of the West Indies, who advocated a certain treatment for the cure of leprosy, recently expired suddenly.

New Publications.

Books Received.

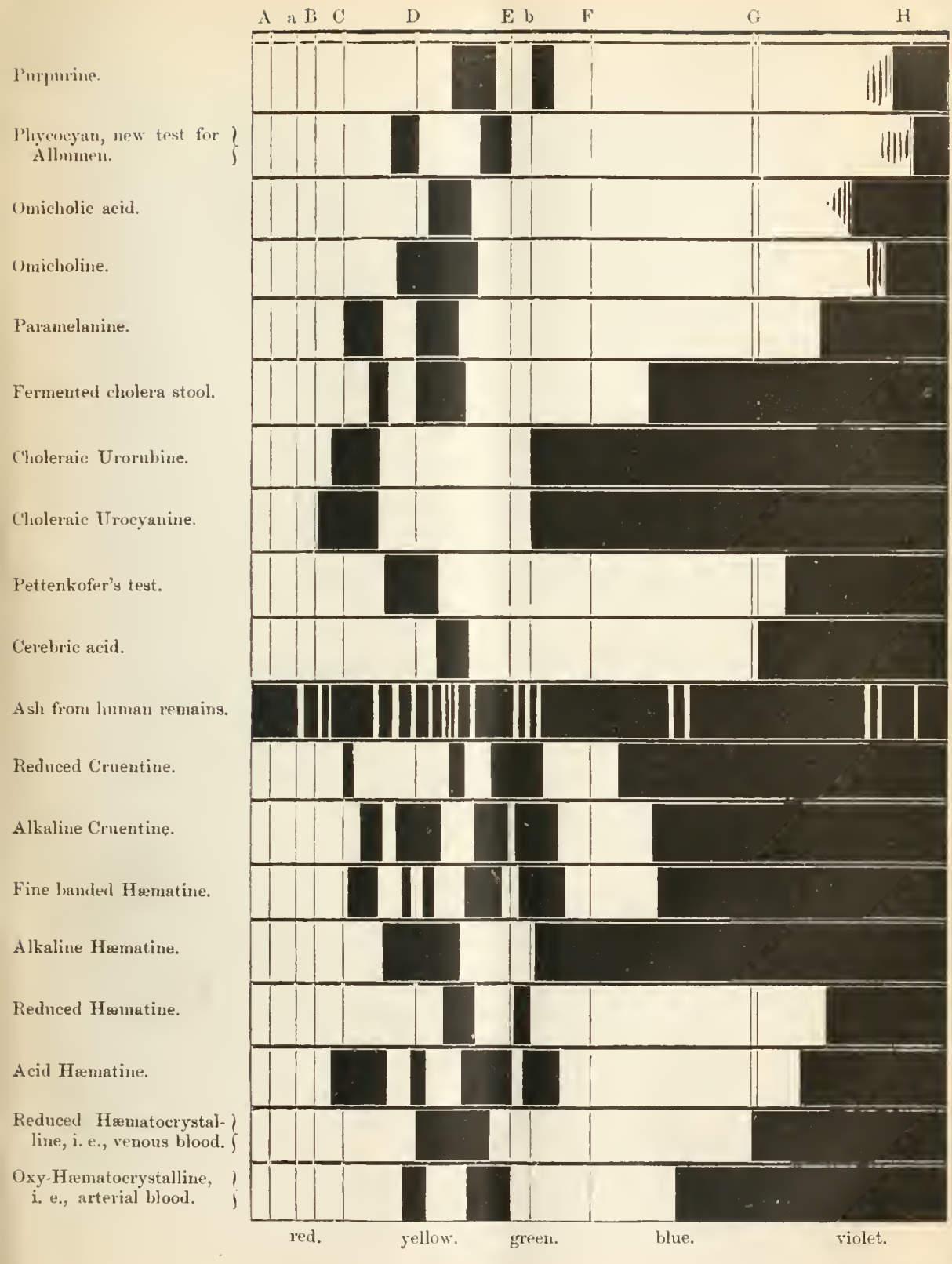
Bolyston Prize Essay, 1871. Diseases of the Skin: The Recent Advances in their Pathology and Treatment. By B. Joy Jeffries, A.M., M.D., Boston: Alex. Moore. 1871.

A Text-Book of Pathological Histology: An Introduction to the Study of Pathological Anatomy. By Dr. Edward Rindfleisch, O.Ö., Prof. of Pathological Anatomy in Bonn. Translated from the Second German Ed., with permission of the author, by William C. Kloman, M.D., assisted by F. T. Miles, Prof. of Anatomy, University of Maryland. With 208 illustrations. Phila.: Lindsay & Blakiston. 1872.

Fecundity, Fertility, Sterility, and Allied Topics. By J. Mathews Duncan, A.M., M.D., L.R.C.S.E., etc. Second Ed., revised and enlarged. New York: William Wood & Co. 1871.

Hand-book of Skin Diseases. By Isidor Neumann. Translated from the Second German Ed., with Notes, by Lucius D. Bulkley, A.M., M.D., Surgeon to the New York Dispensary, etc. New York: D. Appleton & Co. 1872.

On the Opathalmoscope in Diseases of the Nervous System and of the Kidneys; Also in Certain other General Disorders. By Thomas Clifford Allbutt, A.M., M.D., Cantab. London and New York: Macmillan & Co. 1871.


A a B C D E b F G H
Purpurine.
Phycocyan, new test for Albumen.
Omicholic acid.
Omicholine.
Paramelanine.
Fermented cholera stool.
Choleraic Urorubine.
Choleraic Urocyanine.
Pettenkofer's test.
Cerebric acid.
Ash from human remains.
Reduced Cruentine.
Alkaline Cruentine.
Fine banded Hæmatine.
Alkaline Hæmatine.
Reduced Hæmatine.
Acid Hæmatine.
Reduced Hæmatocrystalline, i. e., venous blood.
Oxy-Hæmatocrystalline, i. e., arterial blood.
red.
yellow.
green.
blue.
violet.

Original Communications.

SPECTRAL ANALYSIS APPLIED TO THE PRACTICE OF MEDICINE.

REMARKS MADE BEFORE THE NEW YORK ACADEMY OF MEDICINE, OCTOBER 5, 1871.

By S. WATERMAN, M.D.,

NEW YORK.

The object of the present paper is to bring Spectrum Analysis prominently before the American medical public. The greatest physicists in Europe have freely acknowledged its high importance and usefulness. Its accomplishments in chemistry and astronomy may be considered as amongst the highest triumphs of the human intellect. The material accumulated up to this present hour, and bearing directly upon the domain of the medical profession, is intensely interesting and accumulates daily and hourly; and it is safe to say, no man can claim to stand at the height of medical culture who is ignorant of the results of spectral analysis.

Much of this material is directly applicable to the practice of medicine. Much of it has contributed to enrich Physiology, Pathology, Zoochemy, and Botany, whilst its bearing upon medical jurisprudence makes it imperatively necessary that its voice be heard and its revelations heeded where blood is to be identified, poison to be demonstrated, and the mode of death by irrespirable gases is to be proved.

But it is not the mere quantity of results that gives spectrum analysis its superior value, nor how much of it may be directly employed in the practice of medicine. Science establishes facts and leaves it to practical minds to apply them usefully.

By spectrum analysis we understand a scientific process in which light, solar or artificial, is made use of to analyze and demonstrate substances both organic and inorganic. The instrument used consists of a system of prisms and lenses by means of which rays of light are broken up into a series of colored tints called a spectrum, and which offers to the eye all the colors of the rainbow with extraordinary beauty and brilliancy. The instrument thus employed is called a spectroscope. You are all familiar with the triangular piece of glass called a prism; you all know that a ray of light passing through it undergoes certain changes. In the first place, the figure of the ray is enlarged, it is bent out of its course, and spread to the right and to the left. This we call the refraction of the ray. But the same ray of light undergoes another remarkable change—it is decomposed, and instead of the white light which enters the prism we behold a number of tints issuing from it, beginning with red, changing to orange, yellow, green, blue, and violet. The spectrum obtained by artificial light we call a continuous spectrum, in contradistinction to the spectrum obtained from sunlight, or the light of the moon and stars, which we call an interrupted spectrum. When we examine a spectrum thus obtained from sunlight through a narrow slit in the shutter of a darkened room, or one provided for in the spectroscope, we observe, when properly focused, that the spectrum is traversed by a number of fine lines, which have been counted and mapped, and according to Angstroem's table there are more than 10,000 of them. The most distinct of these lines were first discovered by Wollaston in 1802. Fraunenhofer in 1814, however, made first use of these lines for purposes of exact measurement, as they recur in all sun spectra with the utmost regularity. He designated them by letters of the alphabet, A, B, C, D, E, F, G, and H, and these lines have since been known as the Fraunenhofer lines.

These lines are represented upon the diagram, and you will at once understand what we meant when speaking of a continuous and an interrupted spectrum.

You observe this line marked D. All the progress in spectroscopy is connected with this line; it is the source from which the marvellous discoveries in solar chemistry originated. This line is called the sodium line, and under strong light and the combination of several good prisms it is resolved into two and even more lines. This line is produced whenever sodium is burned. It is coincident with the D line of the sun spectrum. Professor Kirchhof, of Heidelberg, investigated this curious coincidence. The only difficulty was this, that the sun line is dark, but the line from burning sodium is a bright yellow line. This philosopher, however, found means to reverse these lines, and by a remarkably ingenious reasoning demonstrated that both had a common origin, and that, therefore, there was sodium in an incandescent state in the sun. I can but glance at these interesting facts this evening. These dark lines are all produced by substances in the highest state of combustion in the sun. The E line is that of iron; C, F, and G are produced by hydrogen, of which there seems to be an incomprehensibly large quantity in the sun, forming solid columns on fire 90,000 miles high. The line b is the magnesium line, and, according to Angstroem, the H line is produced by calcium.

Professor Stokes was the first who instituted physiological researches with the spectroscope. He published his results in 1864, and described and mapped the spectra of hæmato-crystalline in its oxidized as well as deoxidized state, and the absorption bands of hæmatine. The oxidized blood answers to arterial blood, the venous blood to its deoxidized state.

The process of making an analysis by means of the spectroscope is simple enough. Bodies to be examined are either solids, fluids, or gases. The solids must be brought to a state of incandescence, either by means of the electric arc or the compound oxygen flame, when they emit rays of all degrees of refrangibility. Fluids are placed before the slit in suitable glass vessels, with plano-parallel walls; tubes also may be used. Fluids give absorption bands in various parts of the spectrum. Gases are examined by means of an electric induction spark which passes through their extremely attenuated atmosphere. The apparatus employed consists of a thin-bored thermometer tube, with a bulb at each extremity, into which electrodes of platina or aluminum are inserted. The tube is filled with the gas to be examined, and then exhausted by the air-pump until the $\frac{1}{500}$ or the $\frac{1}{1000}$ part of the ordinary pressure of the air is left. In that state of attenuation the gas offers very slight resistance to the electric spark, it becomes very hot, emits brilliant and beautiful light of various colors, changing, of course, with the different gases employed.

Thus no known substance can defy the analytical power of the spectroscope. Every known metal, alkali, or alkaline earth, when heated up to a gaseous state, gives off light peculiar to itself, influencing and changing the spectrum in a manner peculiar to itself and to none other,—some of them absorbing all the colors of the spectrum with the exception of a single bright band, of which sodium and thallium furnish an example. Others are known by many fine bright lines in various parts of the spectrum as barium, cæsium, and rubidium. The fluids show dark bands in the spectrum of various depths of shading, breadth and purity of outline. These black bands are called absorption bands.

When colored fluids are examined we witness also modifications of the spectrum. None however, so rich and distinct in features, and none has struck

more deserved attention than the spectrum of the blood, of which we shall speak presently.

One word regarding the extraordinary delicacy of the spectrum test, which far surpasses every other test previously known to us. To give you an idea of the sensitiveness of this test let us take one pound of common table salt and divide it into 500,000 parts. One of these minute atoms of matter is called a milligramme. The experienced chemist is able to weigh such a minute particle only with the most delicate scales, and with extraordinary care and acquired dexterity. But with this performance he has arrived at the limits of possibilities. And now let us divide again one of these minute particles into 3,000,000 parts, and we obtain an atom of matter so minute that the human mind is incapable of forming any conception of it. Yet we can demonstrate its presence by the spectrum test with the utmost certainty and ease. The dusting of a book in the remotest corner of this room will immediately cause the sodium to dart forth with its brilliant yellow line, and thus reveal the presence of this metal.

This delicacy of reaction is not confined to sodium alone. Lithium gives a reaction with a $\frac{1}{1000000}$ part of a milligramme; strontium with a $\frac{1}{1000000}$ part of a milligramme; in the ash of a cigar, moistened with hydrochloric acid and held in a flame, we obtain simultaneously the spectra of sodium, potassium, lithium, cæsium, rubidium, and calcium.

The marvellous analytical powers of the spectroscope have been evidenced in the discovery of seven new metals, two by Bunsen and Kirchhoff, to wit, cæsium and rubidium; one by Crooks, to wit, thallium; one by Reich and Richter of Freiburg, Saxony, called indium.

The facility to observe the sodium line in the spectrum is of great importance to the physicist. The presence of this salt in sufficient quantity in the air is absolutely necessary to life in its many and different forms and conditions. Its antiseptic properties are specially adapted to prevent contamination of the air, earth, and water, and its deficient supply is probably connected with the rise and progress of endemic contagious diseases such as cholera, typhus, and others. The never-failing source of this salt is the sea, fine particles of it are continually floating in the air, resulting from the action of winds and from the slower processes of evaporation. Thus we meet the compensating power of natural laws. The storm that brings destruction to the shore-bound mariner casts abroad over continents the elements necessary to life and health; and whilst life may be sacrificed to its relentless fury, its saving mission to millions endowed with life testifies to the greatness and wisdom of the Creator.

Daily spectroscopic observations show considerable variations in the supply of this salt in the air, by corresponding variations in the intensity and brilliancy of the sodium or D line. We may thus be able to foretell hereafter an approaching epidemic, and its departure, with the same exactitude as we are now able to foretell the approach and cessation of a storm.

Of the various metals spectroscopically demonstrated in the human body, we may mention potassium, sodium, lithium, rubidium, cæsium, and calcium. Lithium also emanates from the sea, it permeates many soils, and is found in plants and in the milk and flesh of animals feeding upon these plants.

Rubidium and cæsium are constituents of many mineral springs. The celebrated waters of Bourbonnes-les-Bains, the springs of Vichy, Gastein, Neuheim, Karisbrunn, and others, owe their curative powers to these salts.

Important in a practical point is the spectroscopic *test* of barium and thallium. In cases of poisoning with these salts, it is the easiest and the most reliable test to demonstrate their presence. The objection that the many modifications of the spectrum by so great a number of substances as can be spectroscopically examined, is liable to lead to confusion, is devoid of foundation. Whilst every substance has its own peculiar spectrum, not possessed by any other known substance, it is, on the contrary a fact, that those who become acquainted with the various spectra by observation do not need the exact measurements of the single bands or lines in order to detect the various constituents. The color, relative position, peculiar form, variety of shape, and brightness of band are quite characteristic to insure ready recognition and exact results even in the hands of persons unaccustomed to work with the spectroscope.

As the exhaustive analysis of blood by the spectroscopic test, forms the basis of its applicability to the diagnosis and the treatment of disease, I will rapidly glance over the array of facts known in reference to this interesting subject.

The first paper on the relations of light of the coloring pigment of the blood was published by Stokes in 1864, and afterwards verified and enlarged upon by Hoppe Seyler. Stokes pointed out the fact that the blood causes a peculiarly strong absorption of light in the yellow and green part of the spectrum; that blood exists in a double state of oxidation; that each state was characterized by its own peculiar modification of the spectrum; that the primitive coloring pigment of the blood could be altered by chemical agents; and that, in its altered condition, forming hæmatine, it would induce corresponding optic changes quite different from those of oxidized blood. In the meantime experiments were made with hæmato-crystalline, the crystallizable substance of the blood. It was soon ascertained that it sustained the same relations to oxygen as the blood does; that it was capable of abstracting the oxygen from the air, and part with it under the influence of the same physical and chemical agents; and that it showed also the same optic relation, and that any alteration this substance undergoes causes a corresponding change in its spectral properties also.

As this hæmato-crystalline, or hæmoglobine, or cruorine as it is sometimes called, plays so very important a part in spectrum analysis, I will mention a few of its many remarkable properties. In form it belongs to the rhombohedric system. It is the most indestructible body known; it retains its integrity for years in solutions that have undergone the offensive process of decomposition. It retains also its optic relations to light, and its peculiar bands, it is reported, can be reproduced from mummies that have departed life thousands of years ago. It is of high atomic weight, the highest known, computed by C. Schmidt and Hoppe Seyler to be as high as 13.280. The stability and indestructibility of this substance are principal factors in an individual's life, and as the quantity of hæmato-crystalline ebbs and rises in the animal economy, so rises and falls the capacity for life and health. The absorption of oxygen is effected with the utmost rapidity, and Pflueger's experiments on dogs showed also that this vital gas is consumed with equal rapidity in the economy.

One of the most valuable properties of the spectroscope is its ability to determine the quantity of hæmato-crystalline as well as the quality, and thereby to ascertain the amount of vitality of an individual in a given case. We can do this in various ways, which being matter of detail I am forced to pass by. One of these ways is to use smoked glasses of known obscurating powers, a procedure of my own, which I shall publish at some future day.

The possibility to measure the vital force is certainly a matter of the greatest importance. True, we can measure the temperature, count the pulse, and by practice learn to appreciate its oscillations, its volume, and other peculiarities. But are the pulse and the thermometer absolutely reliable? What experienced physician has not witnessed in inflammatory conditions, such, *i. e.*, as peritonitis, meningitis, and others, a compressed, small, wiry pulse, which would lead the unwary to administer stimulants, to the imminent danger of the patient, when after a moderate abstraction of blood the pulse would quickly rise to great strength. Let us confess we are often in doubt whether a case is truly the result of anæmia or otherwise, forcing us to temporize when the fleeting moments are extremely precious.

How welcome to us is in such moments the information which the spectrum test is so well able to impart! Resting upon strict scientific principles, and based upon nature's immutable laws, what in former days was revealed to the most favored observer can now be ascertained by a simple knowledge of spectral analysis.

Spectrum analysis is suggestive as to the proper treatment of abnormal conditions depending upon permanent or temporary alteration of the blood crystals. We understand now how it happens that when a man has inhaled the poisonous and much-dreaded fire-damp, the mephitic exhalations of the coal-mines for example, he may be brought to the surface alive, may linger on for days, and yet is beyond the possibility to recover, even if he were plunged into an ocean of oxygen. Such was the condition of many of the victims of the late accident in the collieries of West Pittston, Pennsylvania. In these cases the crystallizable ingredient of the blood had been affected. We know now that the act of breathing is not a mechanical but a chemical act, that hæmato-crystalline alone possesses the marvellous capacity to attract and fix the oxygen, loosely indeed, so that it may as easily be exchanged for carbonic acid; that the blood in the lungs saturates itself with the vital oxygen, that it is carried by the heart's action into the remotest recesses of the capillary system; that it there parts with its precious burden and supplies the oxydizable tissues with the breath of life, and that it carries back from them the irrespirable carbonic acid to be exhaled by the lungs' action, assisted by chemical processes not yet fully understood.

We know the strange and fatal affinity of hæmato-crystalline for carbonic oxide and other irrespirable gases, which, once attached to it, form inseparable alliances, hold in deathly embrace, use up all oxygen, so necessary to the animal economy, to satisfy their own wants, as is the case when sulphuretted hydrogen is inhaled; or the deathly messenger deprives the hæmato-crystalline of its power and capacity to absorb oxygen, and to convert the hæmato-crystalline in oxyhæmato-crystalline, as is the case when carbonic oxide has been inhaled; or both effects occur at once, when, for example, prussic acid has been brought into the circulation.

In these cases transfusion is the only rational remedy, the infusion into the vitiated current of a fresh supply of hæmato-crystalline, to sustain anew the vital exchanges. The quantity need not be large. Such are the philosophical deductions which spectrum analysis forces us to accept. Formerly, when poisoning took place with irrespirable gases, efforts were made to neutralize their effects by chemical antidotes. It was taken for granted that the same chemical affinities would be exercised in the human economy as in the laboratory, and medical men recommended the inhalation of sulphuretted hydrogen as an antidote in cases of poisoning with chlorine gas, and so the reverse. Unconscious of the utter hopelessness of such proceeding, they thus heaped danger upon danger.

Thanks to our progressive age, such destructive practice lies far behind us.

I have spoken of transfusion in these and other cases where the vitality of the hæmato-crystalline has been suspended or destroyed.

This operation is not free from danger; it requires proper mechanical means, not accessible to all, and neither the instruments nor the blood necessary may be on hand when wanted. It also requires experience, which not every physician may be able to gather.

In view of this I propose to give the hæmato-crystalline internally, not alone in poisoning with gases, but also in cholera and typhus, which affect the integrity of this life-sustaining substance. Solutions of this salt may be substituted where transfusion is practised, or a small quantity may be hypodermically injected. It can now be purchased in quantity, and experiments should be instituted to test the correctness of my proposition, which is at least logically and philosophically correct. As this substance also possesses the respiratory power, it may prove superior to transfusion. Its indestructibility would insure its reaching the circulation in an unaltered condition.

But even should it undergo a chemolytic change under the influence of the gastric juice of the stomach, its only possible transmutation would be into hæmatine, which substance, in common with hæmato-crystalline, also possesses the breathing power of the blood, although perhaps in an inferior degree. I shall be in possession of a large quantity of this salt from abroad, and will have an opportunity to test the value of my suggestion.

Now all these changes of hæmato-crystalline, as effected by irrespirable gases or chemical means, are traceable upon the spectrum by corresponding changes of bands and lights. True as the needle to the north pole is the spectrum to the substance it analyzes.

These two well-defined bands in the yellow and green part of the spectrum between D and E are the world-renowned blood bands of blood in a state of oxidation. If we deprive the blood of its oxygen by reducing agents, these two cheerful bands disappear and make room for this one broad band between D and E, marked on the diagram as reduced hæmato-crystalline. The two bands will, however, reappear if the blood solution is shaken up with air or mixed with solutions capable of giving up oxygen.

If blood or hæmato-crystalline is acted upon by any acid, or alkali, or alcohol, it is chemolysed into albuminous substances and a colored matter, which retains all the iron but none of the sulphur of the original compound. This is hæmatine. If we place this substance before the spectroscope we obtain a quite different spectrum, or, better, a number of spectra, the modification depending upon the agent that has been employed to separate it from the original compound. Here on the diagram is a four-banded spectrum of hæmatine, obtained by the action of acids upon the blood.

Above this are the bands of reduced hæmatine. For hæmatine may be reduced, like hæmato-crystalline, by reducing agents. If thus reduced it presents two bands resembling the blood bands, but differing from them in position, width, and depth of shading.

The one above is a one-banded hæmatine spectrum; it is obtained by the action of pure alkaline upon the blood.

The next five-banded spectrum also belongs to hæmatine; it results from the action of acidulated alcohol upon blood.

Hæmatine is of rare occurrence in the economy. It has been detected in the urine, ready formed, in a disease to which the name "intermittent hæmaturia" has been given. This disease was first described by Dr. Greenhow, and published in the *Edinburgh Medical Journal*, May, 1863; and cases have since been reported by Sir Thomas Watson, Drs. Elliotson, Prout, Harley, Dickinson, and others. I have found it once in the last stage of Bright's disease. Hæmatine crystallizes in rhombic plates.

A new body, termed cruentine, has been discovered and described by Dr. Thudichum. It is derived from hæmatine by the action of sulphuric acid upon a portion of the material employed to chemolyse hæmato-crystalline, and which remains insoluble. This substance, like hæmato-crystalline and hæmatine, can exist in a double state of oxidation; it can be oxidized and deoxidized at pleasure, and the simple shaking up of the mixture with air is sufficient to bring it back to a state of oxidation.

This derivate or decomposition product of the second order also possesses the respiratory power of the blood corpuscles.

As is the case with hæmatine, cruentine has its own spectral peculiarities, and offers a rich harvest to the spectroscopist. We have seven modifications of cruentine, a few of which only I have represented on the diagram. You observe that they differ from each other and the spectra of hæmatine as well as hæmato-crystalline in features quite distinct and readily recognizable.

These modifications are dependent, as was already said of hæmatine, upon the chemical agent employed, and are matters of detail which I am admonished to discard in this lecture.

Being in possession of all modifications to which blood can be brought by chemical agencies, we are now prepared to understand how this analysis can be applied in medicine.

First and foremost, its adaptation to forensic medicine is to be considered. No matter in what manner blood-stains have been tampered with, be it by maceration, boiling, acids, alkalies, or alcohol, the spectroscope can tell us all about it. Where no change has been attempted, we can show the well-known blood bands. Where boiling has been resorted to, we know that the hæmato-crystalline has become coagulated, and we must obtain the hæmatine tests; so when acids and alkalies have been employed we do well to use the cruentine reaction with its characteristic bands. We have already adverted to the fact that hæmato-crystalline preserves its integrity almost forever, and that we can always demonstrate it spectroscopically. You may interrupt me by claiming that a good microscope will demonstrate blood equally well. To this, however, I must respectfully demur. I am no stranger to the microscope, and know, in the first place, that the defining power of the best instruments falls far below the response of the spectrum test. But it is entirely useless when blood has been acted upon by the various chemical agents above enumerated, and where the corpuscles have been disintegrated and destroyed, leaving no characteristic by which the microscope could definitely demonstrate blood. At this juncture the marvellous power of the spectroscope is seen to its greatest advantage, and the best authorities abroad have frankly admitted that no blood analysis is complete without the application of the spectrum test.

In cases of poisoning by prussic acid, carbonic oxide, sulphuretted and phosphoretted hydrogen, the spectroscope is able to give decided reactions, provided the blood can be examined soon after death; and although the absorption bands of blood effected by prussic acid and carbonic oxide do not reveal any very striking deviation in relation to spectral phenomena from those of pure solutions of hæmato-crystalline, yet have we ample means to recognize them by the spectroscope. For example, carbonic oxide hæmato-crystalline resists the action of reducing agents, which blood does not, and Dr. Gamgee considers this non-reducibility as sufficiently characteristic to determine in forensic cases poisoning by carbonic oxide.

Spectrum analysis has thrown light upon the nature of bile in disease, and made us acquainted with many of its results of decomposition. Normal bile is nearly devoid of the power to affect the spectrum, and this negative quality becomes a matter of great diagnostic value. The presence of the biliary acids was formerly demonstrated by means of the "Pettenkofer test." A mixture of sulphuric acid and sugar with these acids produces a splendid purple color. The test, however, is no longer considered a valid one, for cerebric acid, lithofellic acid, and even albumen, give this test with rare intensity. The spectroscope alone is able to give reliable information, and we possess optic differences by which each of these bodies may be recognized.

Satisfactory results have been obtained from spectral analysis of urine. The presence of hæmato-crystalline or hæmatine in the urine is, of course, easily detected. In diseases where an extensive destruction of blood corpuscles takes place I have repeatedly discovered a beautiful band near F, at the commencement of the blue part of the spectrum. When this band becomes visible in the urine it indicates gravity of disease, and is a landmark to the practitioner, informing him that the vital powers of the patient are fast breaking up and passing away. In my last year's lecture before the Medical Journal Association I predicted prismatic peculiarities for purpurine. Want of material prevented me from discovering and describing two very distinct absorption bands between D and b and E and F. They are described by Stokes. As this pigment found in the urinary secretion is derived from a peculiar morbid transmutation of the biliary acids, *and indicates grave hepatic disorder, its early discovery is of the greatest diagnostic value.* By the spectrum test we can discover it in the smallest quantity. The bands represented on the diagram are from an alkaline solution of purpurine.

The spectral appearances of urine in endemic cholera deserves our special notice.

The early urine of patients under the influence of this terrible malady contains a peculiar principle, which under the action of certain chemical agents has the property of generating a blue and a red coloring matter. These pigments give peculiar absorption bands. The blue pigment differs in a most decided manner from the blue pigment which is derived from indican. It differs also from the blue pigment derived from bile, but bears resemblance to the alkaline alcoholic solution of hæmatine. The spectrum test may therefore be applied *to diagnosticate true endemic cholera from the urine of cholera patients.*

In addition to the spectral phenomena of cholera urine we have peculiar absorption bands characteristic of cholera stools—the so-called "rice-water dejections." The spectrum resembles that of blood, but differs from it sufficiently so as to distinguish one from the other for practical purposes. These bands are not produced by any other evacuations known, and we have therefore in them a diagnostic sign of the highest value *to distinguish in doubtful cases sporadic cholera from the true Asiatic disease.*

The source of this pigment in cholera stools is probably the hæmato-crystalline split up and morbidly

changed by the destructive chemolytic power of the cholera poison.

The spectroscope has thrown also considerable light upon the cause of some symptoms in Bright's disease hitherto little understood. We all know that uncontrollable retching and vomiting is often a constant symptom in chronic renal disease. This is probably produced by two new bodies discovered by Dr. Thudichum. They are decomposition products derived from urochroome, to wit: omicholine and omicholic acid. They are formed within the economy in certain diseases of the kidney. They possess highly nauseating and emetic properties, and probably cause that uncontrollable irritation of the stomach, especially in cases where, by an irrational treatment, salutary evacuations have been suppressed, and the task to relieve the system of this noxious product has been thrown upon the stomach.

These bodies can be readily demonstrated by the spectrum test.

Uromelanine, a decomposition product from urine, is also sometimes found ready secreted in the urine, and can be easily detected by the spectrum test. It is often coincident with melanotic disease, and points at grave disordered assimilation and imperfect decarbonization of the blood. A substance always found in connection with it is paramelanine. It is an interesting body, as it yields the spectroscopic characteristics of cruentine, thus revealing its true origin from the blood.

Spectrum analysis has recently been employed in experiments to demonstrate minute quantities of vegetable poisons and their alkaloids, such as strychnine, veratrine, atropine, and others. The experiments, although not completed, are promising very interesting results. Metallic poisons, such as arsenic, copper, antimony, lead, thallium, and barium, can be most readily detected by bringing them into a state of incandescence, when each of them will show its own peculiar modification of the spectrum. Many of the tinctures and solutions of narcotic poisons give characteristic absorption bands, and by the aid of the spectroscope we can detect adulterations of wine, malt, and fermented liquors; by its aid we also determine the age of wines, and the quality and purity of fixed and volatile oils.

Recently the spectroscope has been employed in ophthalmic practice to determine states of color-blindness and other abnormal conditions of the retina, and to determine the capacity of colored glasses for spectacles suitable to individual cases where only a certain amount of light is borne and desirable.

A new spectroscopic test for albumen is recorded in the *Microscopical Journal of the Royal Microscopical Society*, July, 1870.

Certain algæ, when decomposing, give up a blue fluid, called by Cohen phycocyan (Schulze's Archiv, 1867, part i.). Sheppard calls it the "dichroid fluid;" he obtained it from the oscillariæ. Under the spectroscope it gives one absorption band, unless it has been decomposed in the presence of albumen, when it yields two bands. When to urine containing traces of albumen this phycocyan is added, it produces the second band, and this is considered by Dr. Hogg one of the most delicate tests for albumen known.

Other interesting material having a purely physiological bearing, the identity of luteine from birds and mammalia, the various spectra of intestinal discharges, both in a normal and abnormal condition, the spectra of the blue and green pigment resulting from morbid intestinal oxidation, and other topics, must be left to some future hour's consideration. I have necessarily avoided all detail and omitted many interesting topics. May my efforts stimulate others, placed in more favorable positions, to take up the subject, and to give it that critical consideration which it so richly deserves.

VITAL STATISTICS AND THEIR CLAIMS UPON THE PROFESSION.

READ BEFORE THE NEW YORK ACADEMY OF MEDICINE, OCTOBER, 1871.

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Mr. President and Fellows of the Academy:—In the paper which I shall have the honor of reading before you this evening, I have attempted little originality. The subject of Nosology is an old one. Its application to statistical research on a large scale is of more recent date. Both have been expatiated upon by many eminent men, to whom I shall occasionally refer, and of whose language I shall frequently avail myself as the best adapted to illustrate the theme.

Permit me, in the beginning, to sketch briefly the origin and progress of those efforts towards nosological classification and generalization whose fruition we are now enjoying. The vast throngs of figures relating to life and to death which within a few years have accumulated by such means, are slowly but certainly unfolding the mysterious laws of national and cosmical disease. We may liken them to the myriads of stars upon whose countless array midnight philosophers have looked and read to the world the majestic laws of space.

We know that in antiquity the study of medicine was monopolized by the priestly caste. The Hindoos appear to have been the earliest to turn their attention to this subject, as one of their sacerdotal medical treatises is referred to an age fourteen centuries before Christ, or 900 years anterior to Hippocrates. This was called the Ayur Veda, and was a synopsis by professional writers of still older medical lore. It contained a rude classification of diseases, whose principal divisions were:—Psychological Disorders, founded upon the Eastern superstition of demoniacal possession; Infantile Complaints, and Affections of the Generative Functions. It treated also of Surgery, Pathology, Toxicology, Materia Medica, and Hygiene. Other works of a similar character are mentioned as having been extant among the Assyrians and the early Egyptians and Greeks. Although some endeavor to arrange, describe, and individualize diseases may thus be traced to a period far anterior to the age of Hippocrates, the descriptions handed down to us are exceedingly imperfect. In ancient times, as in our own, pestilences naturally attracted most of the popular attention on account of the consternation created by their ravages, and they have therefore frequently received historical mention. But neither the classic historians of the Jews, the Greeks, or the Romans described with any precision the plagues which swept over ancient countries. Notwithstanding that Thucydides gave an elaborate description of a pestilence by which Athens was devastated, its nature remains a mystery, although it was probably an epidemic of small-pox. A great number of plagues were mentioned by Livy, but it is impossible to determine their character. Hippocrates and Galen were more precise in their accounts of epidemics and other affections, but still confounded many, and failed in accurately defining others which they may have recognized and understood. Celsus, who flourished during the reign of Augustus, left a remarkable and systematic review of the maladies then prevalent. Notwithstanding the confusion of diseases and ambiguity of definition which

characterized the writings of these distinguished physicians, their delineations were often so perfect as to serve the purposes of modern observers. Although they were frequently erroneous in their speculations, they were clear and perspicuous in their narrations of pathognomonic facts, and thus established a basis for nosological arrangement. But the analysis of diseases, like the other departments of medicine, was a slowly progressive science, interrupted and modified by political events. During the Middle Ages medicine participated with its sister arts in the general obscurity and barbarism. Its scientific cultivation was confined to the Saracenic schools—the principal of which flourished at Bagdad, Cairo, Cordova, and Fez. The renowned Arabian physicians Avicenna, Avenzoar, Theophail, and Averroes were familiar with the aphorisms of Hippocrates and the Commentaries of Galen. It appears that on the conquest of Alexandria some books were saved from the burning of its magnificent library, among which were those mentioned, which were soon translated by the Arabians. Thus they became disciples of the Greek pathology, resolving diseases into the four great classes whose peculiarities were severally attributed to the sanguineous, the bilious, the phlegmatic, and the melancholic temperament. Many of their religious dogmas were necessarily interwoven with the doctrines which they promulgated.

Although systems of authentic necrology have been in vogue for three hundred years in some places—for example, in Geneva, Switzerland, where all deaths within that period have been recorded,—it was considerably later that the endeavor was made to precisely define and methodically classify diseases. "Plater," in the language of Mason Good, "may be regarded as the morning star that first glimmered in the hemisphere of symptomatology, as Serveto was in that of the circulation of the blood. The light of both was feeble and tremulous; but it twinkled in the midst of darkness, and led on to the brightness of day. His work, entitled Prax's Medica, in which he gives an imperfect sketch of a plan of symptomatic nosology, was published in 1602."

Sydenham subsequently seized the thread which Plater had first taken up, and in 1675 suggested giving to diseases short definitions, such as those by which plants were distinguished. His recommendation was not reduced to practice until 1731, when Franciscus Boissier de Sauvages, a celebrated professor of medicine at Montpellier, published an outline of a nosological system after the model of that employed by botanists in the classification of plants—by classes, orders, genera, and species. Linnæus was also at this period carrying forward his remarkable system of botany. Sauvages' treatise, which had previously been strongly endorsed by Boerhaave, was entitled "*Nouvelles Classes de Maladies.*" He improved it from time to time, until in 1768, shortly after his death, appeared the culmination of his labors in his renowned work, the Nosologia Methodica. This contained the first full and systematic arrangement of diseases ever executed. Sydenham's suggestions had quickened the well-stored and colossal brain of Sauvages, until thence sprang forth the wisdom-armed creation that gave form and substance to every successive endeavor of the kind. He was fond of acknowledging his indebtedness to Sydenham, whom he styled, "Anglus Hippocrates." Sauvages' Nosology embraced ten classes, each introduced by an elaborate pathological synopsis; 44 orders, 315 genera, 2,500 species, and innumerable varieties; with the definition of each, its synonymes, history, diagnosis, prognosis, and treatment. This almost endless category called forth from M. de Ratte, in his eulogy of Sauvages, delivered before the Royal Society of Sciences at Montpellier, the exclamation, "Quel nombre prodigieux d'ennemis!" The distinctions of Sauvages were generally founded upon symptomatic characters. But his system was too diffuse, too full of ramifications—a nosological labyrinth, immense, wonderful, and perplexing. His herculean labors, however, produced a deep impression upon the scientific world, and, like all great inventions, his production was soon subjected to improvements by other master-minds throughout Europe. Hence the subsequent attempts of Linnæus, at Upsala, in his Genera Morborum; of Vogel, at Göttingen, in his Definitiones Generum Morborum; of Sagar, at Iglaw, Moravia, in his Systema Morborum Systematicum; and of Cullen, at Edinburgh, in his Synopsis Nosologiæ Methodicæ. That of Cullen appeared in 1792, and on account of its intrinsic merits at once supplanted all others. His method of classification resembled Sauvages' somewhat in form, but was even more comprehensive, while it was characterized by greater brevity, simplicity, and accuracy of definition. It contained but four classes, Pyrexiæ, Neuroses, Cachexiæ, and Locales. He reduced the 44 orders of Sauvages to 20, and his 315 genera to 151. He did not attempt to arrange diseases according to their proximate causes, but more especially with reference to the pathological elements upon which they depend. Such a system, however, must necessarily have partaken of the imperfections which marked contemporaneous opinion or conjecture, and have been subject to continual modification. Naturally, therefore, it became gradually overwhelmed, and sank at last under the waves of increasing knowledge.

Cullen's chief competitors were Selle, Plouquet, Pinel, Crichton, and Darwin. Time does not admit of more than an allusion to them. They made few innovations upon Sauvages' system, generally recognizing the same principle of making divisions dependent upon the prominence of particular symptoms.

The first attempt made in Great Britain to improve on Cullen was that of Macbride, whose four primary divisions were into Universal, Local, Sexual, and Infantile disorders.

More modern nosologies have been devised by Parr, Bichat, Vicq-d'Azyr, Richerand, Young, Mason Good, and Farr. Young and Good classified diseases according to the special functions involved.

Mason Good's division was into affections of the Digestive, the Respiratory, the Sanguineous, the Nervous, the Sexual, and the Excernent Functions, with a distinct class for fortuitous lesions and deformities.

Professor Carswell proposed a classification founded upon the elementary phenomena and products of diseases—a rather impracticable one in the present state of medical observation.

Many other nosological classifications have been propounded and employed by eminent men to facilitate their own special investigations. Some are suitable only for the practitioner, others for the anatomist, the physiologist, the pathologist, the medical jurist. All such endeavors to reduce to system have helped to increase our stock of knowledge in fulfilling the specific objects for which they were devised. In classifying diseases the extent to which their analysis should be carried must depend upon circumstances; and for statistical uses the individuality of the facts should be sufficiently preserved, while the distinctions should not be more subtle than is necessary to separate the facts. Such a system, and one applicable to the wants of different populations, was a problem first solved by Dr. William Farr. A Statistical Congress was convened in Paris under the auspices of the French Government, in

September, 1855, to consider this subject, and they agreed upon a nomenclature of the causes of death essentially the same as that proposed by Dr. Farr. At another Congress, held in Vienna in 1857, a uniform nomenclature and plan of registration for all the European States was determined upon. Dr. Farr's classification was not so generally adopted, but has since been making its way in Germany and other portions of Europe. This nosological classification, though by no means perfect, doubtless possesses, in its practical bearings upon public health, advantages over every system that has preceded it. Let us examine for a few moments the principles upon which it depends. Its primary divisions are five, and are founded upon the manner in which diseases of similar character or type affect the population. Thus, we have, first, the great class of Zymotic diseases, chiefly comprising fevers *par excellence*—the epidemic, endemic, and contagious or infectious disorders,—which suddenly attack masses of people, which spring from different sorts of malaria or from specific communicable poisons, contaminate the atmosphere and the water, and decimate, in a brief time, civil and military communities. We read in sacred history of whole armies having been suddenly swept away, as that of Sennacherib, which, while besieging Jerusalem, lost 185,000 men in a single night under the deadly breath of the Destroying Angel—a beautiful metaphor, probably, for the swift and invisible blow of the pestilence. It has been well remarked that these diseases "distinguish one country from another, one year from another; they have formed epochs in chronology, and, as Niebuhr has shown, have influenced not only the fall of cities, such as Athens and Florence, but of empires." This great class of maladies is the index of salubrity; it is this class which varies to the greatest extent in different climates and seasons; that constitutes the principal difference between the health of various peoples and periods. It is eminently proper, therefore, notwithstanding the features which serve to distinguish these affections as clearly from one another as from those of a different class, that they should be grouped together. The resemblance in their effects and influence is of vastly more importance than the disparity in their several traits. Associated in the same class, and partaking of their peculiarities in a minor degree, we have epizötic, parasitic, and inoculated diseases, with those resulting from the deprivation of sustenance and abuse of drink.

Besides the zymotic disorders, there is, as Dr. Farr expresses it, "a legion of diseases, never halting and not so much controlled by external circumstances, viz., sporadic diseases or ordinary maladies of every-day occurrence." These are sometimes hereditary, sometimes apparently spontaneous or traceable to various exciting causes, but not generally regarded as capable of direct propagation. They participate frequently in the fluctuations of zymotic diseases, being often modified thereby and thence assuming different types. First among these are the Constitutional Diseases, including the diathetic, as rheumatism and cancer, and the tubercular, as phthisis, scrofula, marasmus, and hydrocephalus. Next we have the great class of Local Disorders—affections of special organs grouped in distinct systems, as meningitis in the nervous, aneurism in the circulatory, pneumonia in the respiratory, peritonitis in the digestive, Bright's disease in the urinary, metritis in the generative, necrosis in the locomotory and osseous, and boils in the integumentary. Next come Developmental Diseases, or those arising from morbid action of the formative, reproductive, or nutritive process, as disorders of newly-born children, premature and preternatural births, cyanosis, atelectasis, spina bifida, and other malformations; diseases of women incident to the puerperal state or to menstrual irregularity; affections peculiar to advanced age, such as senile gangrene and decay, and diseases consequent upon imperfect nutrition, as atrophy. The final class embraces deaths due to Violent Causes: the direct results of physical or chemical forces, whether applied accidentally, suicidally, or homicidally; and comprising as a rule cases necessarily subject to judicial investigation. Dr. Farr remarks that in a political point of view violent deaths are of great importance, as they bear more upon the efficient part of the population. He regards them as a very prominent class which should be distinguished from all the others, and thus illustrates his point:—"A watch or machine may be destroyed by dashing it upon the ground or throwing it into the fire; its motion may also be arrested by internal causes having their source in its own mechanism. In the body are innumerable processes going on which are not mechanical, and a change in which will destroy life, as the acid fermentation destroys milk or wine, without any mechanical agency."

I have taken the liberty to review Farr's classification at some length, and have consequently reiterated points which are undoubtedly familiar to most of those present. There may be others, however, who may not have had occasion to examine this Nosology, and therefore I have indicated its salient features in order that my subsequent remarks may be correctly interpreted by all.

Before proceeding to detail the difficulties which attend the proper classification of the various causes of death as they are returned to the Health Department, I will say a few words with reference to the history of our municipal registration.

The official memorial of deaths in New York city dates back to 1798, in which year were registered the names of five persons, three infants and two adults. It is somewhat singular that both of the latter were negroes. In 1799 and 1800 no names were entered on the register. In 1801 there were 43; in 1802, 843; in 1803, 1,134; and in 1804, 725. From that date up to 1811 none were registered, save in 1808, and then but 424. In 1811 only 40 names were recorded. Thus within 14 years, in an average population of 70,000, there were registered an annual average of but 230 deaths. In 1812 there were recorded 2,503 deaths, the first fair approximation to the actual number.

Many of these early entries were very indefinite, as, for example, "Mrs. Dick's child, aged two years, place of death, Greenwich St."—no disease specified; and "George Bennison's three children, interred in one grave." There were a few registries of the names of persons dying elsewhere than in the city, as in Westchester, or even Philadelphia; one being simply recorded as "brought 70 miles for interment" here. Under the heading of "Remarks" in these venerable books is occasionally found some quaint record—as, for example, we are informed that Wm. Powell died on August, 1, 1803, of a "casualty by taking too large a vomit." Fortunately, perhaps, for the posthumous reputation of Mr. Powell's physician, there was preserved in those days no record of the names of medical attendants.

Although individual observers have left us accounts of various diseases which prevailed here in the last century, principally those of a pestilential nature, no attempt was made to collect authentic statistics of general mortality until 1803, when John Pintard, Esq., published the first Bill of Mortality, extending from November 1, 1801, to January 1, 1803. Mr. Pintard at the same time endeavored to direct public atten-

tion to the importance of a complete registration, not only of deaths, but also of births and marriages, but without much success, as no laws encouraging such registration were enacted by the State until 1847, and it was only in 1853 that a statute embodying stringent and specific provisions in these regards was adopted. But very little attention, comparatively, was paid to the act, and no attempt made to enforce its requirements. The number of marriage and birth returns increased, to be sure, but were still exceedingly deficient, as they remain to this day, not much to the credit of those who are delinquent in contributing to such important branches of registration. The number of deaths reported was also far from being complete. The City Inspector supplied undertakers with burial permits signed in blank, and they or the cemetery keepers returned the certificates of death at their discretion. The most flagrant abuses were thus possible. This practice continued to a certain extent up to the organization of the Metropolitan Board of Health in 1866, after which no burials were permitted until the proper certificate of death had been deposited at the Central Office. Imperfect as had been the registration of deaths prior to 1866, the classification of their causes had been even more so. As there was no supervision of any description over the returns, a large number of certificates were necessarily received which assigned the most indefinite and unmeaning causes, such as congestion, corpulency, hereditary or congenital disease, extravasation, inflammation, inflammatory fever, polypus, ulceration, bleeding. It seems almost incredible that but a little over five years since such certificates should have been sent forward to serve as a basis for most vital scientific inquiries. Very little had been attempted at classifying even those diseases which were recognizable until 1843, when Dr. Griscom, during a brief term of office in the City Inspector's Department, introduced the first improvements. Thereafter the principal zymotic affections were grouped together, but many others were assigned an uncertain and variable position. This was a great step in advance, but was abandoned in 1859 by Dr. Ramsay, then Registrar of Vital Statistics, who returned substantially to the old method of simply alphabetical arrangement. He made a separate table of Deaths from External Causes, which, besides those from violence, embraced cyanosis, malformations, old age, premature births, and sun-stroke—a rather motley assemblage.

In March, 1866, the newly organized Metropolitan Board of Health entrusted the vital statistics of this city to the supervision of Dr. Elisha Harris, to whom we are indebted for the adoption of Farr's system of classification. Since that time the causes of death have been arranged in accordance with that method, those of each week being separately classified, the weeks being consolidated into quarters, and the latter into years. As the same system is pursued in Great Britain and other countries, constant international exchanges and comparisons are practicable, which are not simply confined to individual affections, but are applicable as well to immense groups of cognate diseases.

In this manner statistics of mortality assume vast importance, and present for our consideration manifold questions of a physical, political, and social character. They determine the laws which regulate the duration of life, and afford bases for calculations materially affecting the interests of millions. Statistics are far from being the barren array of figures ingeniously and laboriously combined into columns and tables, which many persons are apt to consider them. They constitute, rather, the ledger of the people, in which, as the merchant in his books, the citizen can read at once all the results of a year or of a period of years as compared with other years or periods, and can deduce the profit or the loss which has accrued to the account of morals, vitality, education, wealth, or power. It has been well said that "science has nothing to offer more inviting in speculation than the laws of vitality, the variations of those laws in the two sexes at different ages, and the influence of civilization, occupation, locality, seasons, and other physical agencies, either in generating diseases or in improving the public health." But putting aside this broad and philosophic view of the importance of mortuary statistics, it is obvious that the application of their deductions must be of great benefit to the physician as a practitioner. This was perceived even as far back as Sydenham, who inculcated the doctrine that the treatment of diseases should have a reference not only to the immediate symptoms and to the season, but also to the epidemic constitution of the year and the locality. It has been said by a distinguished author that "man is not born, does not live, does not suffer, does not die, in the same manner on all points of the earth. Birth, life, disease, and death all change with the climate and soil, all are modified by race and nationality." Medicine, with the other natural sciences, has now abandoned vague hypothesis for truths determined by observation. Numerical expressions are now substituted for uncertain and conjectural assertions. Only a limited number of facts, however, are contained within the horizon of a single observer. Power is derived from the aggregate observations of many. But however remarkable may be the circumstances which are thus brought into view, they must owe all their value to proper classification, or, in other words, to the manner in which they are presented, both relatively and as a whole. The significance of mortuary classification is entirely dependent upon the accuracy of information supplied by death certificates. As this becomes more apparent to the profession, and they recognize the full bearing upon the science of medicine of such masses of facts, they must also perceive that every single contribution to vital statistics is in its ultimate value as so much "bread cast upon the waters," destined to be "returned after many days."

These certificates of death pour into the Bureau of Vital Statistics incessantly in a huge chaotic mass without form or meaning;—they must at once be severally grasped, analyzed, and arranged in their appropriate places. Their resultant figures must not lie. The whole edifice must be built upon a substantial foundation of truth, or it will be defective, however massive and imposing in appearance. But in the first place, gentlemen (and in this lies the inherent responsibility of the profession itself), the fundamental facts of which I have spoken *must be facts*, clear and unmistakable, and each must be so unequivocally presented as to admit of but one interpretation. These facts are communicated to us only upon certificates of death;—they should not be couched in vague or ambiguous language, for upon a proper conception of their meaning depends the whole fabric which we construct. To many it may seem superfluous to dwell upon this point, but it is a vital one, and moreover one scarcely appreciated by the profession. Dr. Samuel Henry Dickson, of Philadelphia, in an article recently published in the MEDICAL RECORD, and having reference to the same point, says:—"My purpose in preparing this paper was to urge upon my medical brethen the necessity of taking action upon the subject discussed and rescuing the profession from the shame of a registration whose defects are all owing to their neglect, and whose value to the community would be vastly enhanced if they would aid the officials in the performance of the duties which they endeavor

to fulfil, but which are rendered so much more difficult by the want of skilful and prudent direction." In this connection, however, I am happy to state that the profession of New York, as a rule, are now much more careful and minute in their returns than formerly; such indefinite causes as cancer, congestion, dropsy, inflammation, fever, hemorrhage, etc., of which Dr. Dickson justly complains, being here rarely given. It may be safely asserted that our statistics of mortality are now more accurate than those of any other city of the United States. But there are a few important points occasionally misunderstood or neglected by physicians, to which I shall refer, as I am confident that they do not receive the attention which they deserve.

The functions of the Bureau of Vital Statistics, so far as they relate to mortality, are threefold and distinct. They consist, first, in authorizing the legal interment of the dead; second, in the accurate registration of various particulars descriptive of each deceased, for future identification; and third, in the scientific and systematic classification and analysis for public use of those affections which terminate human existence. Now, as the law makes it incumbent upon every physician who has attended a person in a last illness to present to the Bureau of Vital Statistics within a specified time a certificate of death containing various details, and as such certificates afford the only data upon which the Bureau is enabled to accomplish the functions stated, it is essential that each certificate should be distinctly legible, and should convey in brief as exact a statement as the physician can possibly supply. The certificate upon presentation is first critically examined to discover whether the death can be attributed to any cause which will necessitate a Coroner's investigation. In such an instance it is the legal duty of the physician or the friends of the deceased to report the death directly to the Coroners or the Police; but as neither the general public nor the profession are fully acquainted with the provisions of the law, many of these cases are submitted to the judgment of the Registrar. Section first of the amended law upon this subject, passed at the last session of the Legislature, reads as follows:—"Hereafter, when in the city and county of New York any person shall die from criminal violence, or by a casualty, or suddenly when in apparent health, or when unattended by a physician, or in any suspicious or unusual manner," the Coroner shall be summoned to hold an inquest. Laws to determine the necessity of inquests have always been extremely vague and difficult of application. The act of 1847 directed the Coroners to investigate the death of every person dying "*under such circumstances as to require an inquest*," which, according to the Revised Statutes, was to be held whenever "*a person had been slain or had suddenly died*." The amended law which I have quoted above seems to be sufficiently explicit. In order that it may not be violated it becomes necessary for the physician in every instance to state clearly the actual character of the fatal affection, and particularly the nature of any external cause in diseases which so often depend upon violence —such as fractures, wounds, erysipelas, peritonitis, gangrene, pyæmia, tetanus, phlebitis, gastritis, etc. If such affection have not arisen from any such cause, its character should be specifically indicated; as, if the Registrar be not satisfied in this respect, the certificate is necessarily returned for the required information before the burial can be authorized.

The Coroners, however, do not insist upon the literal interpretation of the law cited, but leave much to the discretion of the Registrar. For instance, it may happen that in an old chronic case, as one of phthisis, bronchitis, Bright's disease, senile decay, and the like, the physician may not have visited his patient for weeks or even months before death, and yet may be morally certain of the cause. In similar instances, as well as most cases of apoplexy, heart disease, and trivial accidents, the Coroner is not notified, although by a strict construction of the law he might claim an inquest.

Secondly. Each item of name, age, condition, etc., should be obtained from the friends with scrupulous care, and should be inscribed upon the certificate so distinctly as to render a mistake impossible. All these particulars have to be copied into registers; transcripts from such records are constantly demanded for legal purposes, particularly for transmission to Europe, where in most courts of law they are the only recognized documents for special uses, and become invalidated by the slightest error. Their inaccuracy, therefore, often occasions indefinite trouble and prolonged litigation. Almost daily mistakes of this sort, originating with the physician, are discovered, and their amendment is frequently attended with great difficulties.

Thirdly. With regard to causes of death upon certificates I shall offer a few additional suggestions.

The question is frequently put, "What is meant by first and second causes of death?" The terms are certainly not exact, and are apt sometimes to occasion confusion. As a general rule, however, it is immaterial which cause is placed first, provided we can comprehend perfectly which was the predominant or original agent to which the fatal result may be imputed. For example, a child has died from scarlatina with the so-called diphtheria; it is not material which of the two be written as the first cause: it will be registered as a case of scarlatina. Measles or whooping-cough will be considered as the cause, although bronchitis, pneumonia, or meningitis may have been the immediate factor. A death will be ascribed to typhoid fever, although perforation and peritonitis may have actually carried off the patient. Cancer will be credited with the fatal result, although it may have occasioned any imaginable complication. Phthisis will be selected, although pneumonia may have accelerated the death.

In some cases it may be advisable for the physician not merely to state the causes of death, but to add a few words of explanation. A person may have suffered from syphilis and may have died of acute laryngitis, without the syphilis having had any perceptible influence in producing the laryngitis, although possibly complicating it; or, on the other hand, the laryngitis may have been unquestionably the consequence of syphilis. In the former case laryngitis would be chosen by us as the cause of death, in the latter case, syphilis; while it is obvious that whether one or the other were placed as the first or as the second cause, without farther explanation, an error might be committed by the Registrar.

When two distinct diseases exist at one and the same time—as, for example, small-pox and phthisis—it is essential that the one actually causing death should be specially distinguished. The same is true of many affections dependent or not dependent upon other coexisting disorders, as Bright's disease and pericarditis or pleuritis, phthisis and diarrhœa, rheumatism and heart disease.

It is also important that the duration of each cause of death should be specified. A miscarriage may have left in its train a metritis, or a metritis may have been the only attributable cause of a miscarriage; the length of time that each disease has existed before death will afford a clue to the proper cause. Diarrhœa and marasmus may be assigned as the two causes of death, and

are perhaps more frequently returned together than any other two diseases; either may provoke or induce the other, and it is only from the duration of each that we can determine which to select.

It might be asked, "Why, if confusion is liable to arise from want of clearness in defining the two causes, would it not be better to state simply one cause?" We answer, that the statistics of particular affections are often as interesting and as valuable as those of groups of diseases; and the different types and peculiarities by which certain diseases are distinguished at various periods are indicated to a great extent by the fluctuations of their complicating disorders.

There are a number of diseases, a list of which is printed upon the back of the present certificates of death, concerning which certain information is requested, either for statistical purposes or to ensure correct classification. I will mention some of them. Cerebro-spinal meningitis is quite commonly given as the direct and only cause of death. All of these cases were formerly assumed in the Bureau of Vital Statistics to be those of the malignant purpuric or spotted fever, and they were therefore all classed with the zymotic diseases. Being struck with their large number, I have been led to make a special inquiry into the character of several cases, none of which were found to have been of the epidemic variety, but simple inflammations such as the name would imply. It is therefore necessary to discriminate between the two kinds, one of which belongs to the zymotic class, and the other to the order of nervous affections. Enteritis and gastro-enteritis may be diarrhœal and zymotic, or, on the other hand, due entirely to local excitement. Erysipelas may apparently arise spontaneously, or may be superinduced by traumatic causes, when it would occupy a different position in our list. Gangrene may be of the specific hospital variety (zymotic); may be produced by embolism (local); may be of the senile description (developmental); or may be the consequence of external violence. Gastritis may be occasioned by internal causes (local); or may be the immediate result of intemperance (zymotic), or may be excited by accidental, suicidal, or homicidal applications from without (violence). Mania and convulsions may be of the peculiar kind dependent upon the puerperal condition (developmental), or may be more directly referrible to cerebral disorder (nervous).

A miscarriage or abortion may be the result of relapsing fever, syphilis, external violence, etc. Peritonitis may be puerperal or spontaneous, or occasioned by some other disorder, as volvulus, or may be traumatic. Phlebitis may depend upon a wound, upon a surgical operation, as that for varices; may be of the peculiar variety known as phlegmasia dolens; may arise without assignable cause, or may terminate some other affection. The same is true of pyæmia, and either of these two diseases is frequently the *only* cause of death returned in cases of *puerperal fever*. Tetanus may be idiopathic or traumatic, or the trismus of newly-born children.

I have selected a few of the most prominent diseases to illustrate the positive necessity of each physician's being sufficiently explicit in defining a cause of death, to enable the Registrar to classify it properly. If a woman die from puerperal peritonitis or puerperal convulsions it will not suffice if we are informed simply that peritonitis or uræmic convulsions was the cause: we must know more, or our statistics will be impaired in value from diseases having been assigned false positions.

There are a few additional points (not absolutely necessary for purposes of classification), but which should be made as explicit as possible upon certificates in order to afford valuable statistical information. In cases of abscess, ulcers, aneurism, necrosis, caries, cancer, etc., the location of the disease should be indicated. Heart diseases, if an accurate diagnosis have been made, should be distinguished as whether pericarditis, endocarditis, fatty degeneration, valvular disease, etc. The special variety of hernia should be stated. Malignant pustule,—can it be referred to epizootic contagion? Premature birth,—the cause and fœtal age, if ascertainable. Preternatural birth (by which we understand one followed by speedy death after prolonged labor, instrumental and manual delivery, etc.) should be described. In cases of syphilis the variety, chief location, and manner of death should be given. Every surgical operation with fatal result should be specified, as well as the affection which necessitated it.

The above information need seldom require more than half a dozen words. But if a little more extended statement be necessary in order to give a perfect idea of the cause of death, it is assuredly better that the physician should devote a few moments to such an explanation rather than be misunderstood. Every day we receive one or more certificates with these brief but satisfactory endorsements.

There are some terms employed not infrequently whose vagueness is very objectionable—as, for example, *febris nervosa*, standing at one time for typhus or typhoid fever, and at another for something else; and *gastric fever*, which in one instance may signify remittent fever, in another typhoid, or nothing but gastritis. It is inexpedient to abandon, as Aitken remarks, the universally recognized names of distinct diseases, or to substitute new ones in their place. Sauvages and Cullen insisted particularly upon this point. "Words," says the former, "are good only with respect to their signification." However clear may be a person's ideas within himself, he can communicate them to others only by expressions equally clear and possessing a definite meaning.

It has been maintained by some nosologists that it is possible to eliminate entirely from our nomenclature all expressions of acknowledged indefiniteness. They would suppress the use of the terms *inanition*, *marasmus*, *convulsions*, and *old age* or *senile decay*. It seems to me, however (although no one more fully realizes the importance of accurate registration), that it would be impossible with our present appliances and means of diagnosis to avoid the employment of such expressions. Vague though they may be, they yet represent ordinary conditions often of obscure origin, whose elucidation would be impracticable. They are, besides, universally employed, and their statistics are therefore useful for comparison.

There are a few questions connected with this subject of nomenclature which seem proper for discussion and consideration in the Academy. In Dr. Dickson's article, before referred to, he takes occasion to criticise the term *cholera infantum* as a trivial and unmeaning one, on account of its not specifically designating any separate disease, and, even if it did, as being mostly impossible of diagnosis. I have for some time entertained a similar view, and have not admitted the name into our statistical tables and reports during the present year, believing that it should be abolished and all the common diarrhœal complaints of children classified simply as *diarrhœa*. Our daily experience teaches us that the certificates in these cases are entirely useless for any separate statistical application, for the numerous expressions *summer complaint*, *cholera infantum*, *diarrhœa*, *enteritis*, *entero-colitis*, *gastro-enteritis*, *intestinal catarrh*, *gastro-intestinal catarrh*, and *muco-enteritis*, are

employed indiscriminately. The word *dysentery* is also occasionally used in cases of the same character where no dysentery has been present, but such instances are too rare to affect the statistics of that disease materially. According to our returns *cholera infantum* is a disease of all seasons, of duration from a few hours to many months, and of occurrence in children up to ten years of age, as we learn from the Report of the Metropolitan Board of Health for 1869.

Typho-malarial fever is an expression lately become fashionable. When used to signify the asthenic form of *remittent* or *intermittent*, it would be more to the purpose, I think, to substitute those terms. A few of such cases, however, have, as I am informed, been examples of *continued fever*, dependent upon marsh miasm, non-contagious, and devoid of the lesions characteristic of *true typhoid*. In others there has been a suspected but not demonstrated co-existence of the two specific poisons. The designation *typho-malarial* would seem a very appropriate and significant one for the two last varieties.

Diphtheria and croup appear to be often confounded, or, rather, either the former term or that of diphtheric croup is quite commonly employed in place of the latter. During 1870 there were reported 241 fatal cases of diphtheria in children under 5 years old, against 381 of membranous croup. I believe that the general experience of the profession for that year should exhibit a much smaller proportion of cases of genuine diphtheria, even if its relative fatality be greater.

This paper has thus far been confined exclusively to the consideration of nosology, the most important element of vital statistics. Man, however, is ushered into existence under natural circumstances almost as impressive as those which circumscribe his duration of life and which attend its surrender. While millions are divesting their being of earthly garb and entering upon their eternal inheritance, other and greater millions are assuming the heritage of life in forms moulded by chance and stamped with ancestral peculiarities. If, therefore, it be profoundly interesting to contemplate the multitude of agencies which impel this innumerable caravan of pilgrims toward their destination, it is almost equally instructive to analyze the manifold causes which have contributed to their assembling together.

The registration of births in New York has always been shamefully deficient, and being elsewhere often assumed to represent fact, has been a frequent source of odium against our city. In 1854, the year following the adoption of a stringent law upon this subject, 17,076 births were recorded; but as only a voluntary compliance with the law was found to be required, the returns gradually fell off until, in 1865, they became reduced to about 5,000. During the ensuing year, which was marked by the establishment of the Metropolitan Board of Health, they reached 10,000, and have since been slowly augmenting. Still, in the past year only 14,524 births were returned, against 27,175 deaths. Compare these figures with those of the city of London for the same year, in which there were registered 77,278 deaths and 113,499 births, a birth-rate of 35 to the 1,000 inhabitants, while our statistics exhibit but 14 to the 1,000. Truly we would seem a degenerate race.

This culpable failure to return births entails a vast amount of trouble and even suffering upon innocent people. As I have previously mentioned, certified transcripts from the public records are the only documents recognized as proofs in certain cases by most European courts of law. Identity, legitimacy, inheritance, daily depend upon such proofs. In some portions of Germany, a child is entirely debarred from admission to the public schools unless his parents furnish this record of his birth. But a few weeks since I received a very eloquent appeal from a gentleman in Hamburg, whose child had been born here in 1867 without the medical attendant having taken the trouble to return the birth. The writer complained bitterly of the doctor's negligence, and stated that he was unable to place his child at school without such authentic proof of its birth. The physician has now lost all remembrance of the case, and it will be extremely difficult to remedy the wrong which he inflicted. The act requires both the parents and the medical attendant to furnish these returns. Many of the parents, however, are ignorant or illiterate, and a large majority are foreigners unacquainted with the law or unfamiliar with the language. During the past year there were recorded the names of 9,282 children of purely foreign extraction and only 2,553 of native parentage. These peculiarities of our population, as distinguished from more homogeneous ones, as well as the somewhat indulgent administration of our laws, would render ineffectual at present any measures to compel parents generally to report their children's births. That duty, therefore, devolves upon physicians; and in accomplishing it they must not deem themselves disinterested; for thereby they are advancing the interests, not only of their patients, but also of their own profession, in supplying particulars which, when massed into statistics, become of acknowledged importance to medical science. The disparity in the sexes born at different periods; the average number of women bearing twins, triplets, etc.; the proportion of offspring from native or foreign progenitors; the ages and occupations of fathers; the average number of children born at different periods of female life and in different seasons; the influence upon reproduction of the relative ages of parents,—these and other kindred questions particularly concern the medical man, and the source of their solution lies in the large number of accumulated facts which constitute these statistics.

Moreover, the actual number of births occurring in a given community each year is indispensable in conjunction with other factors for computing the increment of population during years intervening between those of official enumerations, and consequently for the determination of the true death-rate. The remarkable precision with which this increase may be approximated is shown by the London tables, according to which the estimated population of that city on April 2d, 1871, was 3,247,631, while the decennial census taken on the same night gave a population of 3,251,804: a difference of only about 4,000 in three and a quarter millions —one almost inappreciable.

The limits of this paper do not permit me to dwell longer upon this subject. I trust that sufficient has been said to persuade those physicians who refuse or neglect to return their births that in so doing they are violating a moral, a legal, and a professional duty. And in conclusion, I ask you, gentlemen, if it is not time that bodies of intelligent and public-spirited physicians such as this Academy of Medicine, should take cognizance of and condemn so reprehensible a state of things for which doctors are principally responsible, and which in an age like the present is a reproach upon a civilized community. Its reform concerns you not only as representatives of a noble profession for whose advancement all stand ready to sacrifice personal considerations, but also as a body of conscientious citizens bound by every obligation to contribute whatever is equitable towards the success and reputation of the commonwealth.

Progress of Medical Science.

Diagnosis of Bright's Disease.—Dr. Charlton (*British Med. Journal*), has found creasote so uniformly successful in checking the vomiting in Bright's disease, that he has diagnosticated this malady, where other symptoms were absent, by the cessation of vomiting under this remedy. As another diagnostic sign, he states that tenderness on pressure of the pneumogastric nerve, in its course through the neck, is evidence of inflammatory disease of some of the organs to which it is distributed. If only one side is affected, the nerve on that side will alone be tender.—*Canada Medical Journal.*

Coma Resulting from Hydrate of Chloral.—Dr. Shaw (*Philadelphia Med. and Surg. Reporter*) describes the effect of a fifteen-grain dose of this substance, given to a paralytic patient for severe abdominal pain. The man soon lapsed into a deep coma, with spasmodic and occasionally suspended respiration, which continued eight hours. He ultimately recovered.

Gonorrhœa Cured in two Days.—A writer in the London *Lancet* claims to cure gonorrhœa and gleet in from two to six days, by injecting a solution of permanganate of potash, five to ten or fifteen grains to the ounce of water. It causes no pain or inconvenience.

Incontinence of Urine in the Aged.—Dr. Schmidt recommends one drop of the tincture of iodine every two hours for this trouble. He has found marked relief follow its use.—*New York Medical Journal.*

Oakum as a Dressing for Burns.—Mr. Robert L. Snow says of oakum as a dressing for burns, that it induces the cicatrization of burns with remarkable rapidity; it induces healing action in those indolent ulcers which are the result of defective hygienic conditions; it prevents all smell; it is cheap, saves time and trouble, and the resulting cicatrices do not contract. —*British Medical Journal.*

Nitrite of Amyl as a Remedy in Cholera.—Dr. Geo. Johnson (*British Med. Journal*) remarks that it is reasonable and right to make a fair trial of nitrite of amyl in the collapse stage of cholera, as suggested by Dr. Talfourd Jones. He confesses, however, that he is not very hopeful as to the results of the experiment, for the subjoined reasons: Experiment proves that this agent has a remarkable power of relaxing the systemic arterioles, and so causing congestion of the subcutaneous capillaries; but he is not aware of any experiments which show that it has a like influence upon the pulmonary arterioles and capillaries. It is well known that an agent which has a powerful influence upon the systemic arteries and capillaries may have no direct effect upon the pulmonary vessels, and *vice versâ*. Then, assuming that the nitrite of amyl has the power to relax the pulmonary arterioles in the normal state, it does not follow, as a matter of course, that it could exert this influence when those vessels were abnormally contracted under the influence of the cholera poison, or that the relaxing effect, if it occurred at all, would be sufficiently durable to assist the patient's recovery. These considerations, while they render it doubtful whether the remedy in question will prove to be a physiological antidote for the cholera poison, yet rather suggest than forbid a careful trial of the drug, if such trial have not already been made.

Xylonite is the name of a new material having for its basis the product of the action of nitric acid upon woody fibre. One of its chief uses is in the manufacture of an impermeable sheeting which, if report is correct, will take the place of india-rubber for sick-room and surgical use. As manufactured, it varies in substance from a thin transparent tissue, resembling the gutta-percha tissue in common use, up to a thickness suitable for water-beds, water-cushions, etc. It seems to possess several advantages over rubber, in that it is not affected by a boiling temperature, and can readily be washed in soap and water and ironed like linen or cotton fabrics. It is not acted upon by oil or grease as rubber is. It can be made of any color, and considerably cheaper than either gutta-percha or india-rubber; is much more durable under constant use, and can be kept in store any length of time without deterioration. A solution of it, resembling collodion, has been formed which appears to be applicable to all the purposes for which the latter is commonly used, excepting in cases in which its contraction on drying is desirable.—*The Lancet.*

The Propagation of Cholera.—At the stated meeting of the Academy of Medicine, held October 5, 1871 (vid. page 436), the application of the spectroscope to the detection of true Asiatic Cholera was alluded to by Dr. Sigismund Waterman, in his paper on "Spectrum Analysis." He said that a considerable lessening of the amount of sodium in the air may cause wide-spreading epidemics of cholera and typhus fever.

Dr. John C. Peters, in disproving this supposition, remarks as follows: We need, for instance, only call to mind the great number of instances in which cholera has been conveyed across the sodium-salt ocean; has broken out in mid-ocean; and has raged in numberless seaports, the whole air of which is loaded and impregnated with muriate of soda.

Again, we know how frequently cholera has prevailed along the whole Russian or north coast of the Black Sea, where the so-called salt-*limans* abound, viz., from below Odessa over to the Crimea. These limans are long narrow bodies of sea-water, the evaporation from which, in June and July, leaves vast deposits of salt. Then the whole coast becomes the scene of great bustle and commerce. The shores and neighboring steppes are covered with caravans coming for salt. The wagons, drawn by six or eight oxen each, can load as fast as they please, for the salt lies as abundant as sand. In addition, the Russian government has huge stacks of salt in convenient places, each containing 400,000 lbs.; and in 1826 it collected six millions of poods, or 240 millions of pounds, from the three Bessarabian limans alone. Yet cholera often prevails in all these places, and is carried up into Poland, to Moscow, St. Petersburg, and even to Riga, in the trail of these huge salt caravans; aided, doubtless, by the great grain caravans; for 50,000 drivers, 200,000 carts, and 600 or 800,000 oxen are employed in the Odessa grain and salt-trade. Clarke & Kohl tell us that all the way up into the country the line of caravans continue almost without intermission. The immense concourse of wagons, the hosts of oxen, and the crowds of drivers of all nations offers one of those singular scenes peculiar to the commerce of Russia.

English Hospital at Metz.—During December, 1870, and January and February, 1871, while the English Hospital was established at Metz, France, the absence of pyæmia was a remarkable fact. A writer in the *Medical Times and Gazette* believes that the exceptionally intense cold which prevailed at the time prevented its development.

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BONE-SETTING AND OTHER SYSTEMS OF QUACKERY.

IT has often been said of the medical profession that it is so hemmed in with self-righteous prejudices that it refuses to look outside for any improvements in the art of healing. No one who has studied the history of medicine for the past century can say that the assertion is not founded on fact. It has seemed to be the rule, when there is a suspicion that this or that practice is not "regular," to pass it by as too contemptible for notice. The majority of the profession have been taught to do this, seemingly, in the fear that the investigation of any new schism invites contamination; whilst the better informed have cultivated a habit of considering it beneath the dignity of science to look beyond the accepted canons. Not only has the prevalence of these opinions been satirized by laymen, when they speak of medicine as a "liberal" profession, but it has cheated legitimate therapeutics of many a useful, nay, valuable hint. Science really is so rigid in its search for truth, and so uncompromising in its deductions, that there is more danger, by fostering unworthy prejudices, of being in ignorance of much we should know, than of being converted to false opinions. The physician particularly has no right to assume, because his views do not coincide with those of another in regard to the action of a particular article of the *materia medica*, or to a particular method of treatment, that, on that account, some good results claimed are impossible. Facts are the only true starting-points of sound logic, and every one should accept them, whether he believes the theories which are fastened to them or not. We cannot hold to the theories of homœopathy (so called), neither can we accept the doctrine so dearly loved by the advocates of the system, but the good effects of placeboes, and the opportunities which the theories have thus provided for allowing Nature the more fully to exercise her own curative powers, are facts which we are now very ready to admit. In so far we have, like men of science, been ready to profit by the hints which such facts afford. It has not been necessary to this end to accept the doctrines of infinitesimal doses; we only go as far as the dictates of simple reason will allow us.

The bitterness with which the purely doctrinal points of this absurd system have been discussed has done more to scare conscientious investigators from the legitimate search of the truth than anything else that could possibly be named. To such an extreme has this been carried, that the mere mention of the system with the slightest show of favor has been sufficient to call down upon the offender the stigma of an unmitigated heretic. The fear of being stigmatized as a quack has been so great, that not only upon the question of infinitesimal doses, but upon every other question of equal absurdity, few indeed have had the hardihood to open a discussion. We are pleased to see, however, that this foolish want of liberality is beginning to pass away; that there are men, good and true, who are willing to examine into the most foolish doctrines applied to the treatment of disease, and strive, in an unprejudiced and becoming way, to reconcile them in part, if not *in toto*, to the present accepted views of physiology, pathology, and therapeutics. Belonging to this class we may more particularly mention Dr. Wharton P. Hood, of London, who has written a little work upon "Bone-setting (so called.)"*

The substance of the work has already appeared in the *London Lancet*, during the early part of the present year; but so great an interest has been shown in the subject, and so great a desire to become more fully acquainted with the details of the strange practice, that Dr. Hood has very judiciously elaborated the papers into a volume. He gives the following account, in his preface, of the circumstances which favored the production of his articles:—

"About six years ago my father, Dr. Peter Hood, in conjunction with Dr. Iles of Watford, attended the late Mr. Hutton, the famous bone-setter, through a long and severe illness. On his recovery, my father refused to take any fee from Mr. Hutton, out of consideration for the benefit which he had rendered to many poor people. Mr. Hutton expressed himself as being thereby placed under great obligation, and as being very desirous to do something to show his gratitude. He offered, as an acknowledgment of the kindness he had received, to explain and show all the details of his practice as a bone-setter. Pressure of work prevented my father from availing himself of this offer, and Mr. Hutton then extended it to me. After some consideration I determined to accept it, and accordingly I went, when I could spare the time, to Mr. Hutton's London house, on the days of his attendance there. My decision was prompted not only by the curiosity I felt to see

* On Bone-setting (so called), and its Relation to the Treatment of Joints crippled by Injury, Rheumatism, Inflammation, etc., etc. By Wharton P. Hood, M.D., M.R.C.S., London and New York. Macmillan & Co., 1870.

how he treated the cases that came under his care, but also by the desire to make known to the profession at some future time any insight I could gain into the apparent mystery of his success."

Taking the fact of the success of the bone-setter in his particular specialty as a starting-point, Dr. Hood was willing to brave all prejudice and actually to become for a time his pupil. In doing so, he doubtless risked among many of his brethren a reputation for ordinary common sense, and as a strict observer of the ethics of the profession. Of all systems of quackery, the practice of "bone-setting" is considered, in England at least, as the most flagrant and defiant. But, ignoring every consideration but the one to fathom and explain a seeming mystery, we have presented to us as the result many useful hints that may not only guide us to equal successes, but prevent us, with our knowledge of anatomy and pathology, from making the mistakes of which an ill-informed person might be guilty.

It is pretty well known that very many persons, with limbs rendered useless by injury or disease, after having been under the care of the surgeon, and having received an unfavorable prognosis, go, in sheer desperation, to a professional bone-setter, who after a few manipulations discharges them perfectly cured. A great many of these cures may be explained by the supposition of hysteria—cured more by mental impression than by any other means; but that this is not always the case, every one knows. Dr. Hood's observations are in keeping with those of many other surgeons, when he informs us that many patients, "given up" with incurable stiffness of joints, have motion restored to them by what at first sight would appear almost a miracle. Many cases in point are cited in the volume before us. Having witnessed some of these himself, he is prepared to speak authoritatively. Nothing damages the reputation of a medical practitioner more than to inform his patient that his disease is incurable, and find that in a few days he drifts into the hands of a quack, and is by some strange proceeding changed to a well man again. Every one knows that human judgment is fallible; that the most skilful are apt to err; but the public are not apt to look upon such errors with becoming consideration or charity. In the way of reputation we have everything to lose, and the successful quack everything to gain. Our duty, then, is to resort to every honorable means of reducing our chances of committing errors to a minimum. This Dr. Hood has endeavored to do, and as the result of a careful study of a certain set of affections so successfully treated by the bone-setters, he has presented us with a theory which gives us a very good reason why.

Bone-setters very rarely, if ever, deal with fractures; their cases are usually those affections which are seated in the joints. They christen every trouble about the joint, stiffened and useless, as dislocation. The patient is at once told that a "bone is out," and the manipulator informs him that he can put it in place; in other words, "set it." Dr. Hood concludes that the successful cases are those in which a peculiar form of false anchylosis exists, a rigidity caused by one or more bands of false membrane interfering with the motion of the parts. These adhesions, the result of inflammatory action, are broken up by the manipulations, and the joint is at once relieved. The point where this adhesion exists is described as particularly painful on pressure, and the patient is readily made to believe that in that situation the bone is out of place. The pain which a temporary stretching of the band occasions the patient when he attempts to make a motion of the part confirms him in such a belief. The bone-setter supposes that his manipulations serve to replace a dislocated bone, when they in reality only rupture this abnormal adhesion. This is accomplished by a comparatively simple manœuvre. The thumb of the operator is pressed firmly upon the tender spot, the limb below the joint is then rotated in its axis, thus throwing the muscles out of their "ordinary lines of action," making them, for the time being, more or less powerless of resistance, and then the limb is sharply flexed and extended, the adhesions rupture (not unfrequently with an audible snap), the pain is relieved, and the patient is told that the bone is in place; and all impediment to motion being removed, he is only too willing to believe that the bone-setter is right, and that his surgeon did not understand the case. Our author's theory may be faulty, but we must accept it until we find a better; at all events, he informs us that he has proved the fact of treatment in numerous cases in his own experience.

The bone-setters being men of no medical education, though of considerable ingenuity, make many blunders in diagnosis, and not unfrequently, by hastening the destructive processes in joint diseases proper, actually cause the death of their patients; but this is by no means apt to occur to properly educated surgeons.

We cannot be expected in this place to give a detailed notice of this very useful and interesting work, and the only reason why we refer to it as we have done is because of the principles which actuated the author in its production; and while recommending every one to peruse it, on account of the many valuable suggestions which it contains, we take occasion to commend any attempt to explore, in the same spirit, other apparently hidden mysteries in the healing art. There can be no more forcible argument than is afforded by this instance, to prove the utility of investigating even the more flagrant systems of successful pretenders, with benefit to ourselves and patients. Such inquiries, carried on in the proper spirit, are the best means of controlling quackery, and exposing, in a legitimate way, its fraudulent foundations.

We are pleased to see that the English Medical Journals are making good use of our remarks upon the Cundurango frauds. In common with many others,

they were at first inclined to look upon the drug with favor, but they are now beginning to see aright and to vote it a humbug.

Reports of Societies.

MEDICAL LIBRARY AND JOURNAL ASSOCIATION OF NEW YORK.

Stated Reunion, October 27, 1871.

DR. S. T. HUBBARD, President, in the Chair.

CHOREA IN CHILDREN.

DR. J. LEWIS SMITH read the paper upon this subject, which we published in our last issue.

DR. J. C. PETERS remarked that the completeness of the paper had left little to be done except, perhaps, to throw a little more stress upon some points. It was almost proven that several different affections were usually included under the common name chorea; these choreiform disorders arising from very diverse causes and requiring each its special treatment. The vast accumulation of valuable experience concerning both the etiology and the treatment of chorea had not as yet been properly classified, nearly every writer on the subject giving undue prominence to some single and therefore partial view. He continued:

Thus Lobb and many others unhesitatingly pronounce chorea to be a disease of simple debility and anæmia, always requiring tonics and hæmatics. Sée, Roger, Hughes, Hillier, and their followers maintain that rheumatism is unquestionably the condition in connection with which chorea occurs far more frequently than with any other, and perhaps than with all others conjoined; yet they treat their cases empirically, without especial reference to the rheumatic diathesis. Romberg and his school look upon it as a purely motor neurosis, all its symptoms being attributable solely to a morbid irritability of the motor nerves, without any derangement of the brain or intellectual functions. Aitken, Hammond, and others assume that among the earliest symptoms of chorea are those referable to disordered cerebral action. Another class of authors have decreed that it is generally a purely spinal affection. While some regard it as a special disorder of the motor nerves and centres alone, others consider its manifestations to be reflex actions dependent upon disordered influences propagated through the sympathetic nervous system from any viscus or other organ. Finally, a small class of observers incline to regard the disease as a local affection of the muscles themselves, entirely independent of the motor nerves, just as is atrophic muscular paralysis.

Some of these opinions are not so very far divergent as they seem on casual examination. Thus the great tract of sensory and motor excitability extends from the corpora striata, optic thalami, and corpora quadrigemina, through the cerebral peduncles, the pons, and the medulla oblongata, down the whole length of the spinal cord. Hence any one of these parts may become the primary seat of choreic disease. Again, the simple reflex or excito-motor actions are only sent up as far as the corpora quadrigemina; in fact, they and the peduncles, pons, medulla oblongata, and spinal cord are, according to Sharpey, the great centres of motor excitability, through the agency of which all the involuntary reflex movements are performed. We are now prepared to discuss the differing seats and varieties of chorea.

We know that we have a large class of cases of *cerebral* chorea, viz., those occurring in comparatively healthy, but somewhat sensitive subjects, from a severe shock of fright, joy, anxiety, or other mental emotion. There is every reason to believe that, in some cases at least, this nervous shock may be almost as severe as the concussion or shock of physical injury. We know that all the blood retreats from the surface, and much of it is forcibly crowded upon the nervous centres, especially about the corpora striata and optic thalami. Fortunately, in the majority of these cases the patient is more frightened than hurt; but in others the nerve cells and fibres undergo some abnormal molecular change. There may also be produced a dilated and even varicose condition of the vessels; or stagnation in the capillaries, or even capillary thrombi. There may be an increase of the granular substance over the fibrous nerve masses, or an increase of the weight and specific gravity of one striated body over the other; and in the most severe and intractable cases there may be absolute softening of an optic thalamus or a corpus striatum.

In the treatment of these cases we may, with Harley, prefer *conium* to all other remedies, for it is a nervine which allays irritation, and in sufficient doses depresses the motor function down to complete obliteration of all muscular movement derived from the cerebro-spinal motor tract. Harley has given 104 fluid ounces of the succus conii to one patient in the course of twelve weeks, with none but good effects; while his ordinary doses vary from ʒi. to ʒiv. or more, two or three times a day.

Of the milder nervines the one which has the highest reputation among the French physicians is *valerian;* and, from the evidence adduced in its favor, there can be no doubt that it exerts a very beneficial influence upon the milder forms of the disease. *Assafœtida* also deserves attention.

In the severest and most obstinate cases, where there are not only congestion but also dilatation of vessels, emboli, thrombi, and softening, the mineral astringents, especially the *oxide* and *sulphate of zinc,* may be employed. Dr. Hammond thinks that zinc is probably more used in this country than any other single remedy; he has himself employed it with good results in gradually increasing doses, from two or three grains up to twenty or thirty, three times a day. But the sulphate is so acrid and disagreeable that it should be used only in the above-mentioned cases.

It is rudely estimated that the proportion of cases of cerebral chorea varies from one-fourth to one-third of the whole. The number of the *rheumatic* cases is nearly equal. The diagnosis of these latter is not very difficult, although it requires some nicety. It is well to remember that those cases in which rheumatism is rather latent than manifest are most apt to be attended with heart disease; that anæmic heart-murmurs should not be mistaken for disease of the valves; that chorea of the papillary muscles may produce such temporary changes in the shape of the auriculo-ventricular openings that a transient regurgitant murmur may be heard; that some pains and swellings of the joints may be caused by the muscular exertion alone; and that the urine may become so saturated and dense from the wear and tear of the muscular and nervous systems, as to resemble the urine of rheumatism. With all these precautions, some cases of rheumatic valvular disease will escape notice, for the auricular surfaces of the valves only may be roughened and no murmur may be produced.

In the rheumatic cases single doses of calomel may be used as purgatives when the bowels are consti-

pated and the evacuations light in color. Subsequently Rochelle salt may be relied upon. The *alkalies* and *aconite* and *colchicum* are also good remedies; but *actea racemosa* (cimicifuga) is our main reliance. This remedy, as stated by Dr. Smith, is mainly depended upon in Philadelphia, and usually it is tried in all cases indiscriminately. It is employed in large doses up to half a pint of the decoction (℥i. ad aq. Oi.) per day.

When we reflect that some of the vegetations which form on the valves of the heart in rheumatic cases are so soft that they may be brushed off with a camel's-hair pencil, we must admit that some or many of them are likely to be carried in the general circulation up to the corpora striata, and form minute embolisms there, with more or less serious consequences. The *muriated tincture of iron* has been suggested in such cases.

The *spinal* cases may often be detected by the tenderness over the spine, and for these the *ether spray* has been decreed to be the best remedy. Dr. Hammond says his success has been unequivocal when the atomized ether has been thrown upon the whole spine, from the occiput to the sacrum, for ten minutes every day —a cure being generally effected in two weeks.

The *reflex* cases come from various sources, the most numerous being due to the irritation of second dentition, worms, constipation, difficult establishment of menstruation, pregnancy, sexual irritation, and Onanism. The *bromide of potassium* for dental and sexual irritation is the best remedy. *Vermifuges*, such as santonin, turpentine, injections of quassia, for ascarides, etc., will suggest themselves to every mind.

The *idio-muscular* cases are less known, and more difficult of management. Their existence is assumed from the fact that various visible changes have been found in the muscular tissue. We know that muscle-tissue or sarcode has a contractility of its own, entirely independent of nervous influence; also that muscular tissue has natural electric currents of its own, which are constantly passing in certain definite directions, as determined by delicate galvanometers. The centre of each muscle-molecule is held to be normally in a state of positive electricity, whilst its poles or sides next the other nearest molecules are negative, thus resembling a zinc centre and copper poles when immersed in dilute acid. The normal muscle-currents are derived from the molecular chemical changes constantly going on in the nutrition of living tissues; and are connected with the processes of osmosis which take place through the sarcolemma. Disturbances of these chemical or osmotic processes cause irritability and irregular contractions of the muscles. Excess of lactic acid, which occurs in the muscles in rheumatism, may have its share in producing such disturbances.

The *sulphur baths* of the French may be especially useful in these idio-muscular cases; for they are always made with the sulphuret of potassium, and we know that sulphuretted hydrogen destroys the contractility of the muscular tissue more than almost any other chemical agent, except the sulpho-cyanide of potassium. Again, curare, which inhibits the conductility of the motor-nerves, down to their finest branches, but does not destroy the contractility of the muscles, has utterly failed in the treatment of chorea, showing that this is often a purely muscular, and not a nervous, affection.

In that very large class of cases which arise from a peculiar irritable *debility of the great motor tract*, from the corpora striata, through the spinal cord, to the very terminations of the motor nerves in the muscles, *strychnine* is the most important remedy. It is one of the best tonics to the motor centres, nerves, and muscles, and exerts an alterative action on many nervous and muscular affections; still it is decidedly wrong to use it empirically in all cases of chorea.

In the *anæmic* cases the preparations of *iron* are, of course, the most suitable medicines. They may be combined with *conium* in some instances where the muscular action is very great, and with *aloes* when there is constipation or amenorrhœa. But it is unscientific to rely upon iron in all cases, as has been done by Elliotson and others.

Arsenic is a nervous tonic, acting, according to Handfield Jones, on both the cerebro-spinal and the organic system, increasing their functional power, and preventing congestion by contracting the vessels, especially those of the skin and uterus; similarly it is found to reduce an undue supply of blood to the spleen and bronchi, and it may act in the same way upon the vessels of the nervous centres. It may cure chorea and asthma by acting as a tonic of nerves or nervous centres which are weak and unduly excitable. In chorea, the voluntary, in asthma the vagi, nerves feel its beneficial influence. It also produces a diminution of tissue metamorphosis, amounting to twenty or forty per cent., and thus may repair the wear and tear of nerves and muscles in severe chorea. Hughlings Jackson has also suggested that it replaces phosphorus, or some other isomorphous constituent of nervous tissue, which has become deficient. At any rate there can be no doubt that arsenic improves the nutrition of the nervous system. It may be given with a saline when there is constipation or a tendency to inflammatory excitement; with iron or cinchona when anæmia with depression and weakeness of the circulation are present. The addition of a little opium is useful to obviate intestinal irritation, or conium when the choreic movements are excessively severe. Hence we need not wonder that arsenic enjoys a high reputation in the treatment of chorea; but, like the other remedies, it must not be regarded as a general specific for all cases.

Finally, in a small number of cases there is pain in the head, with signs of *cerebral congestion*, and even of *meningitis*. It is to this class only that *tartar-emetic*, so highly lauded by West, is applicable.

Such, Mr. President, are the principles which I think ought to guide us in the treatment of chorea. It is true that the majority of cases of chorea recover naturally in the course of a few weeks or months; and whatever remedy a practitioner may use will be followed by a certain, and even a large, proportion of recoveries. But it is none the less true that the nature of each case should always be carefully diagnosed, and the remedy selected with equal care and judgment. Then only will cures be effected in the shortest time that the peculiarities of the case will allow, and with the least annoyance to the patient.

Proper diet, cod-liver oil, and the phosphates, the tepid or cool plunge or shower-bath, are almost necessary adjuncts.

Dr. Garrish thought Onanism a very important factor in the etiology of the disease.

Dr. Sayre related the case of a young woman, in whom the mental impression produced by a congenital deformity of the hands (supernumerary fingers) had brought on severe and obstinate chorea. The nervous symptoms had promptly disappeared, not to return, when she learned that the deformity could be removed by operation.

Dr. Seguin said that the dynamic or gymnastic treatment of chorea deserved more extended notice than Dr. Smith could afford it in a short lecture; and he gave some recollections of its first application to

choreic children. Among the first idiots ever systematically educated, some who were at the same time choreic, improved under the physiological training, both mentally and physically. The history of one of these cases, Marquis, was recorded in the "*Leçons aux Jeunes Idiots de l'Hospice des Incurables*," Paris, 1839-40. After these children were removed to Bicêtre the number of the choreics comprised about ten per cent. of the idiots under training. The success obtained here induced Drs. Blache and Paul Guersant (both well acquainted with Dr. Séguin's "physiological method" of education) to apply the dynamic part of that method to the numerous choreics of the Hôpital des Enfants de la rue de Sèvres, where the treatment had from that time to the present been in general and constant use, with the rational addition of sulphuret of potassium baths. This treatment at the Hôpital de la rue de Sèvres consisted mainly of gymnastic exercises, from which excitement is excluded, tending to promote the power of steady muscular resistance. There was neither in books, hospitals, nor schools, such methodical application of dynamics to the medical treatment of children prior to 1839.

Dr. Mary C. Putnam, who had closely followed the clinic of the Hôpital des Enfants (rue de Sèvres) for the last four years, replied to a question by Dr. Seguin, that the gymnastic treatment was still regularly employed there for all choreics able to be out of bed. The milder cases received also sulphuret of potassium baths; those more severe, arsenic; and the worst, tartar-emetic.

Adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 19, 1871.

Dr. E. R. Peaslee in the Chair.

Dr. Charles P. Russell, Register of Records, read an able and important paper on "Vital Statistics, and their Claims upon the Profession." (Vide page 437.)

Dr. Chadsey, in opening the discussion of Dr Russell's paper, said that not one-third of the births under the care of physicians were reported to the Bureau of Records; and midwives never reported. He considered the paper one of importance to the profession, and deserving of an extensive circulation.

Dr. Stephen Rogers thought there was not much to discuss, as the author of the paper had gone well over the ground. The following resolution was presented and carried:—

"That in the historic, intelligent, well-prepared, and important paper just read by Dr. Russell, this Academy recognizes a reasonable, striking, and urgent, though temperate appeal to us and to the profession. That we heartily endorse the principles and objects set forth in it, and will use both our individual and official influence towards securing the uniform observance of its recommendations and suggestion."

The President stated that he had been somewhat remiss in reporting births to the Bureau, not being aware that it was such an important matter, and so much depended on birth statistics.

Dr. Hubbard, while approving of the main points presented in the paper, thought an exact record of births could not be made until a new law was passed by the Legislature, empowering a house-to-house visitation. The Board of Health should start a new project.

Dr. Foster would have the Sanitary Inspectors make these visitations in conjunction with their sanitary duties.

Dr. Russell replied that the time of the Inspectors was completely taken up in sanitary matters. Two hundred and fifty Inspectors would be required to make such a house-to-house visitation. He thought the physicians should do their duty, although he favored a new law. He also said that midwives generally reported births better than the physicians.

Dr. Ellsworth Eliot believed that a fine of ten dollars could be collected from every physician who neglected to report births. He believed if this law was enforced, births would be better reported by midwives and physicians.

Dr. Russell said it was hard many times to detect cases of births, and to discover the medical attendants.

Reference having been made by Dr. Foster to fines collected from physicians who did not report births within the specified time—ten days from the birth—Dr. Van Kleeck thought it was too bad to fine the physicians who did return their birth certificates, although tardily, and allow those who did not, go free. He has always been in the habit of sending his certificates to the Health Board promptly during the last twenty years.

Dr. Hubbard believed in the London method of collecting the statistics of births, viz., the division of the city into a large number of districts, with an Inspector for each district. This system is in vogue in the city of Providence, R. I., and is in good working order. He hoped that a new law would be drawn up and presented to the Legislature for action.

Dr. W. C. Roberts, Vice-President, after alluding to the cultivation of the Department of Vital Statistics by the former efficient Sanitary Superintendent of the late Board of Health, spoke as follows:—

The system thus inaugurated is pursued, I am convinced, with equal zest, fidelity, and success by his successor, the present Register of Vital Statistics, to whom we so agreeably listened this evening. The right, however, of entertaining and expressing individual opinions is the inalienable privilege of the citizen of a free country; and if I shall seem to fail to share in all the enthusiasm of my learned friends in behalf of statistical registry, it is not because I the less respect their judgment, nor that I undervalue the practical results of their labors in those departments of the Bureau in which I feel assured of their necessity; and I am sure that however much they may pity the blindness which leads me to entertain opposite, and as they will consider them, heterodox, ideas as to other parts of the system, those on which its merits are most supposed to depend, they will pardon my expressing them, which I do, not to dogmatize, nor set up my own opinions in opposition to those of abler men, but to elicit truth by discussion.

Permit me to point out what I consider the essential and imperative duties of a Health Department. First, to prevent, as far as possible, the introduction of disease into the city from without. Some diseases, as cholera and yellow fever, are always imported; others are often imported, as typhus and relapsing fever and small-pox, although they may arise here from domiciliated germs. Now, to meet the first of these requirements, so far as contagion from abroad is concerned, a rigid enforcement of quarantine can alone be depended on, and with this, so far as contagion from abroad is concerned, the Health Department has but little to do.

But when it is ascertained that a case of disease has made its way into the city from anywhere, the best efforts of the Board should be, and are, directed to preventing any further spread. Statistics showing how far and how successfully this has been done, would be undoubtedly valuable as proofs of success, and guides

and incentives to further effort. That this is possible and essential is shown by the success of the efforts made to prevent the spread of the cattle disease in 1868, and the consequent avoidance of sources of disease in the use of unwholesome food; a point in which, in other ways, the Health Department exerts a very wide-spread and salutary influence.

Second, in every large city in which zymotic diseases have long prevailed annually as endemics, and have become domiciliated, there remain dormant, at all times, seeds of contagion which at intervals awaken to activity and exert their deleterious influences. Now, where these seeds lurk, or what they consist of, may not be known; but if, as is strongly suspected, they either exist in decomposing filth or garbage, or find a nidus there for their ova, it becomes the paramount duty of a Health Department to destroy, by all known means and methods of disinfection, these seeds of infection and contagion.

Third, and most important consideration of all. Inasmuch as contagious diseases arise, not only from the zymotic extension and diffusion of germs, but that these germs escape and are diffused within limited spaces of the surrounding atmosphere from the bodies of the infected themselves, their skins, breaths, and above all, their excreta, which is particularly the case in diseases which have their seat in the mucous membranes of the intestines (as typhoid fever and cholera), and adhere to clothing, etc., it becomes the duty of the agents of the Health Department to cause the freest ventilation and purity to be maintained in the homes of the sick, tenement-houses especially; to isolate some in upper chambers, with the least possible contact with the well.

There is a fourth grand duty which devolves on the Health Department—of disinfecting all filth and garbage collected in the streets, gutters, and privies; and it is to be regretted that this cannot be done effectually, because, unfortunately, the duty of street cleaning is deputed to another bureau, and under another organization, and the Health Department has little or no control over it. Until the two departments are conjoined under a common head, and thoroughly and simultaneously performed, sources of disease will continue to be rife in our midst.

These observations are not irrelevant, because I propose to contrast these practical and essential duties with others appertaining to the Health Department, in which, I regret to say, I do not repose equal confidence —those performed by the Bureau of Vital Statistics. These are notably, with other minor duties, the marriage registration act, the birth registration act, the still-born act, and the registration of diseases and deaths—Vital Statistics as they are, I think, improperly called.

As to the first of these, I cannot see that it properly belongs to a Board of Health, as having no connection with causes or removal of diseases and death. Marriages are most imperfectly recorded, and of those that are, what has the tabulated record to do with the business of sanitary science? Does it make any difference whether there be more marriages in one year, or month of a year, than another, etc.? With the legal aspect of the marriage registration act it seems to me a Health Department has nothing to do. It will make marriages neither more nor less frequent, wise, happy, fruitful, or lasting.

So with the registration of births, which may interest the census-taker. The record is confessedly imperfect. Many children are born and buried without an undertaker or a certificate. No cause can always be assigned for the death of the fœtus in utero, or for premature delivery, nor can either be always prevented. I fail to see wherein such records are "full of importance and hygienic significance." The most important duty, however, devolving on the Register of Vital Statistics, is the record and tabulation of diseases and deaths, one now considered so important a feature in Boards of Health.

In the Annual Report of the Metropolitan Board of Health for 1868, now before me, I find 140 pages of the volume devoted to the registration of all diseases and their prevalence and mortality, yearly and quarterly; the death-rate per 1,000 annually of the population from all diseases; an abstract of deaths in each quarter, with ages, sexes, and percentage, comparisons with former years, elaborate diagrams of the course of mortality of the chief fatal diseases, etc.; statistics tortured, in short, in various ingenious ways to evolve results, which may be deeply interesting to those engaged in such investigations, and to the Actuaries of Life Insurance Companies, but are not, I fear, practically important to the great business of public sanation (the removal of the possible causes of disease and death, and the suppression of those actually existent), and which require large expenditures of money annually for clerk hire, stationery, and the expenses of printing, publishing, and binding.

The Board of Health, I see by the papers, have petitioned for the means of carrying on their work, reciting their labors, sanitary, not statistical; and in the interim they stand comparatively still, and their employés are unpaid. If you would have fewer items for the statistician, you must continue uninterruptedly the practical work of the Department. The safety of one is the safety of all; and as eternal vigilance is the price of freedom, so is it also that of a city's salubrity. Destroy the seed and you will reap no harvest.

You have, my fellow academicians and citizens, a Board of Health, which, under the quiet but sagacious vigilance of a head man, whose sole objects are the sustaining of the honor and credit of the Board, and the safety of the city; whose competent officials are on the watch daily and by night, when you are sleeping unsuspicious of danger, to keep the wolf from the door, and secure your health and that of your familes. This, from my own knowledge and experience, I assert that it does to the very best of its means and ability. Look to it that these means are never crippled, and this ability never impaired. Beautify all your parks and squares, if you will, with millions annually drawn from the city treasury; carpet your marble palaces of justice with the choicest productions of the loom; Ingersoll them with furniture of regal magnificence, and Garvey them, if you will, with greenbacks; but not at the expense of the custodian of the public health and safety.

The Board of Health should be able to say, in the proud language of a noble Scottish family, "Thou shalt want ere I want." Salaries equivalent to the social and professional positions of those employed, many of whom are refined and intelligent gentlemen, in this laborious, disgusting, and dangerous line of duty, should be punctually paid them.

No money should be grudged or wanting to effect its ends, or maintain its efficiency. "Salus populi *suprema* lex!"

The Academy adjourned.

Stated Meeting, November 2, 1871.

Dr. E. R. Peaslee, in the Chair.

Drs. T. Matlock Cheeseman and Joseph S. Monell were elected Resident Fellows.

TREATMENT OF FRACTURE OF THE FEMUR.

Dr. Frank P. Foster then read a paper on "Some Points in the Treatment of Fracture of the Shaft of the Os Femoris," in which he advocated the double inclined plane with three pulleys. This apparatus, he claimed, was particularly adapted to fractures of the upper third of the femur. He also exhibited a new splint for fracture of the forearm, invented by Dr. Blake.

Dr. Gordon Buck, in opening the discussion, said that this double inclined plane seemed to be simple, and adapted to that displacement of the femur where the short upper fracture is drawn up. In other cases the straight fixture, with a single pulley, would be better adapted.

Dr. B. J. Raphael thought there was a tendency to complications in every new apparatus, as in this double inclined plane with its three pulleys. He admired "Buck's Extension" very much, and knew of no apparatus which could supersede it.

Dr. Buck stated that the counter-perineal band in his fixture was often not used, and only required when raising of the bed did not answer. Some of his friends used strips of adhesive plaster for an extension, in lieu of the perineal band.

Dr. Raphael remarked that he had not seen the band used for years; but had seen the sheet used instead. He inquired of Dr. Buck what was the weight used in his cases.

Dr. Buck replied that in his paper on "An Improved Extension Apparatus for the Treatment of Fracture of the Thigh," published in the Medical Record, April 1st, 1867, 146 cases, aged from 2 years to 63 years, of simple fracture of shaft of os femoris were detailed:

Under 15 years of age, 54 cases, of which 45 were male, and 9 female. Primitive shortening in 46 of 54 cases, ¼ inch to 2½ inches—average, 1⅛ inch. Weight employed in 38 cases, 3 pounds to 20 pounds—average, not quite 9 pounds. Result of treatment in the 54 cases—no shortening in 33 cases, maximum of shortening, 1 inch in 2 cases. Average of total, 54 cases, about ⅛ inch.

Over 15 years of age, 92 cases, of which 79 were male, 13 female. Primitive shortening in 83 of 92 cases, ¼ inch to 3½ inches—average, 1⅜ inches. Weight employed in 79 cases, 3 pounds to 28 pounds—average, 14¾ pounds. Result of treatment in 89 cases recorded—no shortening in 12 cases; maximum of shortening, 1½ inch in 2 cases—average, scarcely ¼ inch.

Dr. Buck also said that a former pupil of his, when passing through one of the London Hospitals in company with Mr. Erichsen, had his attention drawn to a patient with fracture of the thigh. This surgeon brought the limbs together, and remarked that there was no shortening; but after he had passed out of the ward the visitor found, upon actual measurement, that there was a shortening of nearly an inch, showing the importance of actual measurement over bringing the limbs together.

Dr. Chas. A. Hart was surprised that no mention had been made of the triple inclined plane used by Dr. Robert Nelson, of this city. He said that Dr. Raphael was aware that it had been used in the case of the late Dr. Cox. The pulley and bandages were not required when this apparatus is employed. In Dr. Nelson's cases no shortening was the invariable result.

Dr. Buck would like to ask if the results in those cases were discovered by actual measurement?

Dr. Hart replied that they were measured by Dr. Nelson with accuracy. These cases were incorporated in a paper, read before the Academy, several years since, by Dr. Nelson.

Dr. Buck said that reported cases were of no value without accurate measurement, and gave cases where other surgeons had supposed there was no shortening on bringing the limbs together; but on accurate measurement, shortening of nearly an inch was discovered. He then gave the following *resumé* of the treatment of fractures of the femur in the late N. Y. Hospital:—When he went on duty there, in 1837, Boyer's splint was in vogue, having been introduced by the late Dr. Alex. H. Stevens, an admirer of Boyer. Sloughing almost always followed this mode of treatment. Then the straight splint was made use of, renewing the extension daily after removing the fastenings. As good results were obtained in this way as anywhere else. Then Dr. Lente, late of Cold Springs, now of this city, when a former house-surgeon of the hospital, called his attention to an article in an Eastern medical journal, by Dr. Crosby, on the application of adhesive plaster as an extension. Then, he said, "I took it up, and have successfully used it to this day."

With reference to the treatment of fractures of the femur as far back as 1840, Dr. Raphael thought a shortening of ¼ of an inch was a good result. He called attention to the case of a boy, in New York Hospital, with fractured femur, where the fractured limb was found, on accurate measurement, to be from ½ to ¾ of an inch longer than the sound one.

Dr. Hart illustrated on the black-board the mechanism and principle of Dr. Nelson's triple incline plane.

Dr. Buck stated that perhaps a surgeon could get as good a result with Nelson's apparatus as any other, provided the limb could be kept in its place; but we must take human nature as it is, and every surgeon knew how difficult it was to keep a patient still without something to secure the limb. The bed-pan must be used, &c., &c.

Dr. Hart answered that a trap in the bed did away with the bed-pan.

Dr. Raphael, in closing, believed that we had, in the so-called "Buck's Extension," the most satisfactory method of treating these fractures. If it was defective, why not point out where the defect lies. He thought it was useless to originate complicated contrivances, as it only tended to mystify the student and practitioner.

Dr. F. P. Foster thought that the three pulleys in his apparatus were necessary; the height of the foot-board demanded them. He would be glad to have only one if it could be done. In regard to the statement of Dr. Raphael, that he had not seen the perineal band used for years, Dr. Foster reminded him that when he was house-surgeon at the New York Hospital, in 1864, the perineal band was in use there, which fact Dr. Raphael would recall to mind, as the latter was a visitor at the hospital at that time.

The President announced that Dr. J. C. Nott would read the next paper before the Academy. Subject:—Natural History of Yellow-Fever.

Stated Meeting, November 16, 1871.

Dr. E. R. Peaslee in the Chair.

NATURAL HISTORY OF YELLOW-FEVER.

Dr. J. C. Nott then remarked as follows "On the Natural History of Yellow-Fever":—

Mr. President: The subject of yellow-fever is so boundless that it is impossible for a lecturer in a single hour to do justice to it or to himself. I have probably seen more of this disease than any member of the profession in this city, and what I have to say is based much more on personal observation than on authority.

My remarks will be confined to a few points of the *natural history* of yellow-fever—those which have not sufficiently fixed attention, and which, if properly studied, might lead to important practical results. My hope at present is not so much to settle disputed points as to attract other laborers into the field.

Yellow-fever epidemics were of frequent occurrence in New York, Philadelphia, and other northern cities during the eighteenth and first quarter of the nineteenth century, and we have no right to conclude that we shall never see the disease again here, because we have enjoyed exemption for the last fifty years. Many towns, as Vera Cruz and others in tropical America, have passed long series of years free from this disease; and such exemptions characterize it in the Mediterranean towns.

Attention should be fixed on the fact that in 1856, about 500 cases of yellow-fever occurred in New York Bay, along the shores of Staten Island, and Long Island from below Quarantine to the suburbs of Brooklyn. And during the months of August, September, and October, 1870, 159 cases occurred on Governor's Island—of which 52 died—within rifle-shot of Castle Garden. No one can assign a reason why this pestilence did not strike the city of New York, instead of that little, dry, well-policed military post; and if it had, 30,000 or 40,000 of our people might have been sent to their graves in 90 days.

Yellow-fever, when it does appear in New York, is seen casting its shadow ahead from the tropics for several years; and the history of the disease proves that it is one always to be scrupulously watched, even in our latitude. There is abundant evidence that it has been for the last year in active motion, and no one can say where on the Atlantic coast it may not go within a year or two more.

Before any satisfactory progress can be made towards the prevention and cure of yellow-fever, it is necessary to comprehend its natural history more thoroughly; its causes, the circumstances under which it originates, its habits, mode of progression, etc. It must be confessed, however, that many essential facts are wanting, and we are therefore driven to such analogies as may direct our researches.

Yellow-fever belongs to the great family of *zymotic* diseases, which opens a wide field; and it is necessary, as a first step, to disentangle it from its congeners, and to view it, as far as possible, free from complications.

Zymotic diseases present varied forms, obey different laws; but may, at least so far as their mode of propagation is concerned, be arranged in a sliding scale somewhat after the plan adopted below: 1st. Diseases like syphilis, which are communicable by contact or inoculation alone. 2d. Those like small-pox, which are intensely contagious, and communicable by inoculation, by fomites, and through the air. 3d. Those like scarlet-fever, which are inoculable with difficulty or not at all, and contagious in a less degree than small-pox; but communicable through the air, and portable by fomites, etc. Like syphilis and small-pox, the poison of these is generated *in* the human system, and eliminated in the same form in which it entered. 4th. Yellow-fever, which *is not* generated in the human system, nor transmitted from one person to another in any way; but whose germ or poison is generated *outside* of the human system, and is taken in after the manner of marsh-malaria poison. But, unlike the latter, its germ is *portable*, and may be carried in vessels, trunks, baggage-cars of railroads, etc., from one point to another, and thus propagated. In the exceptional cases, where the disease *seems* to be communicated by personal contagion, the germ I believe is enveloped in the clothing of the subject, and thus transported. 5th. Marsh-malaria fevers, which are strictly endemic—of local origin—not contagious, and not portable.

Little objection, I presume, will be made to the above propositions, except, perhaps, the single point touching the *contagiousness* of yellow-fever.

There is a very wide difference in the character and behavior of contagious and non-contagious diseases, between which yellow-fever forms the boundary line. I will first say a few words about the peculiarities of contagion; and in the present state of our knowledge, the best explanation of its generation and manner of propagation is given by Dr. Lionel Beale, the distinguished English microscopist, which is substantially as follows: 1st. Leaving out of the question its *origin*, the morbific germ of any contagious disease (as small-pox) is communicated from one human body to another, in some form, as *living germinal matter* or *bioplasm*, which germinates within the body—multiplies greatly in the same manner as all *living* matter proliferates and multiplies. All such germs are lineal descendants of parent germs—and thrown off from one body—communicated to another, and thus perpetuated. 2d. *Living matter* alone can germinate and multiply in this way. There are no facts to prove that *inorganic* matter has the power of increasing and reproducing its kind in or out of the body. It cannot form an infinitesimal particle, like the virus of small-pox and other contagions—so increase as to furnish material sufficient to poison persons, and thus perpetuate itself. When a dose, large or small, of opium, belladonna, arsenic, strychnine, mercury, etc., is administered, the effect is *in proportion to the amount taken*, and its action ends here,—there is no *multiplication* of the poison, by which increased action can be developed in one individual, or increase of poison to be handed over to another.

With regard to the origin of such disease-germs, we are wholly in the dark. *Some of them*, at least, have existed for ages, and been handed down "from sire to son." Small-pox and scarlet-fever, for example, we know to have been imported into Europe from Asia long after the Christian era, and were totally unknown among the aborigines of America before the Spanish conquest. Whether other diseases of this class are originated *de novo*, is a mooted question; for example, typhoid and typhus fevers, cholera, and some others. The poison or germ of all contagious diseases will remain in fomites, etc., for such a long time as to render this point a difficult one to decide.

There are, however, certain morbid and contagious poisons that we have every reason to believe *are* generated *de novo*, such as erysipelas, purulent ophthalmia, glanders, hydrophobia, the poisonous pus of traumatic peritonitis, and malignant pustule. Although the foul emanation from decomposing organic matters (human and other excrements, etc.) may not *originate* disease-germs, they undoubtedly so affect the air as to produce various deranged states of health *favorable* to the development of typhus, cholera, etc., "and this predisposition seems to be exactly analogous to the preparation of soil for seed." Not only does polluted air throw the system from its balance, but, there is reason to believe, may furnish the *pabulum* necessary in many cases to the propagation of organic germs.

Decaying animal matter (night-soil, etc.) seems to create for some poisons great centres or foci, where specific germs or poisons are able to multiply. Dr. Lancaster remarks: "An interesting question for inquiry is thus opened up as to whether the germs of typhoid fever, cholera, etc., could be made experimentally to grow or increase upon, or about, organic matter, just as the germs or spores of many fungi are induced

to grow in collections of manure." "In such collections on the earth's surface," says Aitkin, "there is reason to believe that germs of such diseases may find a resting-place. *That thus they are always extant somewhere*, although it may only be now and then, when seasons and conditions conspire, that they display their full power as epidemic diseases. As such they seem to occur every now and then as 'mysterious cycles,' the existence of which we admit, but do not understand." "The fallacy that pervades the argument from cases to prove the *de novo* origin of contagious or epidemic diseases is seen in the fact that the poison of typhus, etc., will lie dormant in clothes, bedding, houses, vessels, etc., for a long time, and then be brought into life." We all remember the well-authenticated example in London, where criminals, in good health themselves, were taken into the Black Assizes, before the court and others, and their clothes being saturated with the infected air of the prison, typhus-fever was communicated to many present, and among others the lord mayor and two judges, who died of the disease. The odor of a dissecting-room, of the pus from peritoneal inflammation, and many other odors, both animal and vegetable, will adhere to clothing and rooms for months, or even years.

Following the allusion to marsh-fever, the speaker said that yellow-fever occupies a rather anomalous position between the contagious and non-contagious diseases. 1st. Its poison is not generated *in* the human system, and it is *not*, therefore, contagious. 2d. The poison, generated externally, not only attacks persons exposed to the *infected place*, but under unknown circumstances may *sometimes* be transported in vessels, trunks, railroad cars, etc., from point to point, and turned loose to propagate. 3d. Like cholera, it *occasionally* leaves its *habitat*, assumes a migratory character, travelling over great extents of country, and not unfrequently breaking through the most rigid quarantine. 4th. In these migrations it usually seems to have a prescribed course, along which it pays no respect to any impediments placed in its way; but places out of its line of travel are often protected by non-intercourse, and hence the great importance of quarantines.

In order to show with what irresistible force these great yellow-fever epidemics sweep over a country, irrespective of topography and all sanitary regulations, an extract from the elaborate "Tableau of the Yellow-Fever of 1853," by Bennet Dawlér, M.D., was introduced.

All epidemic diseases have their *periods of activity and repose*, and show every possible grade from a sporadic case here and there up to the most intense and wide-spread epidemics. Yellow-fever is no exception to this law, and may be truly said to push it to its greatest extreme. Not only has New York been wholly exempt for half a century, after repeated visitations, but many of the towns in tropical America, where it prevails in its most terrible form, have enjoyed similar exemptions. When the disease appeared in Rio de Janeiro, in 1850, the inhabitants had lost all remembrance of its ever having been in Brazil. A search of their records, however, proves that the disease had visited that country many years before.

Yellow-fever is essentially a disease of tropical and bordering countries, though it takes on from time to time a migratory character, and travels far beyond its accustomed limits. It comes up now and then in great epidemic waves, and usually casts its shadow ahead. It is, I believe, never seen as a vigorous epidemic on our Atlantic coast, without first showing great activity in Insular and Central America. Although this disease had prevailed on our Atlantic coast repeatedly during the eighteenth century, our records of its outbreaks are imperfect previous to the one of 1793. In that year, after ravaging nearly all the tropical towns, it struck Philadelphia, and was made memorable by its ravages, as well as by the writings of Rush, Hosack, and others.

This was truly a great epidemic wave, scattering death from the mouth of the Mississippi through all our towns along the coast as far as Boston, and even Quebec, until about 1805, a period of twelve years.

That epidemic having gradually exhausted itself, we heard little of yellow-fever again until about 1817, when, after ravaging the tropics as usual, it struck our Gulf towns, and through a series of years attacked New Orleans, Mobile, Charleston, Savannah, Norfolk, and, in short, every town along the Gulf and Atlantic, culminating in New York in the terrible epidemic of 1822, when it entered upon one of its periods of repose. It continued to appear irregularly in our Gulf cities, but rarely showed itself on the Atlantic, even as far north as Charleston.

In that last period of repose it seemed to gain new strength, and reappeared with a vigor perhaps without parallel. This epidemic commenced in Rio de Janeiro, in January, 1850, and travelled night and day for six years, making its expiring effort in New York Bay in 1856. I had my eye upon this epidemic from its commencement, watching its steady course and ravages along the Atlantic, Caribbean Sea, and Gulf of Mexico for several thousand miles. When it struck New Orleans it was clear to my mind that our own coast was doomed, and before it reached Mobile I was so certain it would come that I moved my family into the healthy pine hills, seven miles from the town, where the disease had never been. But, in spite of all my prudence, the disease not only came to Mobile, but followed my family out to Spring Hill, where I lost four of my children in one week.

I then wrote to my friend, and former pupil, Dr. Peter Gaillard, in Charleston, that the disease would reach Savannah and Charleston the next year, from the rate at which it was travelling, and I advised him to get his family out of the way in time. I wrote another letter to Mr. George Poe, of Georgetown, D. C., predicting that the disease would reach Norfolk the year after (1855), and probably go still further north. To my surprise Mr. Poe published my letter in the *National Intelligencer*, and I was placed before the world in the light of an unwilling and unwelcome prophet. I would not have been bold enough to risk such a prediction in print had I been consulted, though I thought I had grounds for it. But unfortunately my prediction was fulfilled to the letter, and my record is still to be found on the file of the *Intelligencer*. It is an interesting fact, too, in the history of this extraordinary epidemic, that in the first three of its six years, *while confined principally to the tropics*, it travelled over more than three times the distance that it did during the succeeding three. This is accounted for by the fact that when it got into the land of frosts it had not more than one-third of each year to do its work in. It was compelled to *hibernate*, and resume its march the following summer. In making my prophecy respecting its rate of travel, I took this fact into consideration: Not only does yellow-fever *hibernate* during its migration at distant points, but will half do its work during one autumn in a city, resume and finish it the next season. 1842–3 was an example of this in Mobile; 1853–4 in Montgomery, Alabama; 1857–8 in New Orleans, and many similar examples might be adduced.

This *migratory* character of yellow-fever has a very important connection with the questions of its *contagi-*

ousness and *portability*. When a disease will travel, as this has done, several thousand miles during six consecutive years, it is often impossible to separate epidemic force, contagion, and portability from each other. Certain it is that no barrier can stop such a disease in the general course it has marked out, and the question arises as to the possibility of protecting places out of its regular line of march by strict non-intercourse.

The cause of yellow-fever, like those of other zymotic diseases, is unknown; but I think it can be pinned down into narrower limits than the cause of any other epidemic disease, and by the law of *exclusion* we can remove from this some of the difficulties which surround both contagions and malarial fevers. But it must be confessed that though we may be able to say what it *is not*, we are yet far from knowing what *it is*.

Yellow-fever cannot be an effect of effluvia emanating from decomposition or molecular changes in organic matter; nor can it find its cause in floating vegetable germs, for the plain reason that it does not operate through the air. If the *materies morbi* existed in the form of gaseous emanations, or atmospheric spores, it would obey the laws of gases and be scattered by the winds over town and country in a few hours. But this is not the case; it will travel through a town step by step, from house to house, for a month or six weeks, uninfluenced in the slightest degree by winds blowing alternately from all points of the compass. In New York, Philadelphia, and other northern cities, the disease always commences near the shipping, and travels in the most gradual manner, taking several weeks to extend over a very small portion of a town from its point of departure.

Dr. Nott then spoke of the gradual progress of the epidemic in New York in 1822, in Mobile during the years 1842–3, and on Governor's Island last summer, and remarked that the only hypothesis which, in our present state of knowledge, has any plausible support, and which may assist in directing our future researches, is that which supposes the agency of some minute insect or other organic form, animal or vegetable, possessing the powers of *self-propagation* and *locomotion*, and which, from its deliberate mode of progression, in spite of calms or winds from all points of the compass, would seem to travel upon the ground, where it will be found by the microscopist, if ever detected. An infected vessel would be the best place for microscopic investigations, as its presence there in an intense form would be certain, from the fact that the disease is readily taken by all who visit such vessels. We have abundant authority to show that yellow-fever is most active in its operation near the surface of the earth. It attacks persons in a larger proportion on a ground floor than on the stories above, and the immunity increases as we ascend in a house. This was well established by Ferguson and others in the West Indies; and in Charleston, S. C., in former years, when the disease was more common in that city, it was the custom to send children into the third story and keep them there during the whole epidemic. It is killed, like insects and plants, by a temperature of 32° F. It is more active at night than in the day, as is the case with insects of various kinds. Like fungi and insects, it is erratic in its attacks, appearing at points here and there in the most unaccountable way. It may attack the inmates of a single house, of a single block, of a ward in a town; it may ravage one half of a city or sweep over the whole, leaving here and there an untouched spot, as insects do in a cotton or grain field.

This disease is, *par excellence*, a disease of towns or crowded populations, and when a town is built on marious grounds the marsh-fevers (in the yellow-fever zone) are gradually driven from the town, as it extends, while they still infest the surrounding country.

In speaking of causes, I must say that I have no belief in the *de novo* origin of yellow-fever out of its proper zone, and believe it is of rare occurrence even in the tropics, if at all. All imaginable causes that could have existed from 1793 to 1822, north of the Potomac, have existed during the last fifty years without producing the disease. But let one of those big overflows of yellow-fever come surging up from the Gulf, and overflowing Philadelphia, New York, Boston, and all the smaller intervening towns, as happened in former years, and you will see a *germ left behind*, here and there, that will spring into life from time to time, until, as certain other exotics, it dies out.

Another problem, yet unexplained in the natural history of epidemic diseases, is that of *variability of type*. Not only does each one, in different years, show marked differences in combination of symptoms, in gravity, in mortality, but in its degree of communicability or portability. Nay more, it is by no means uncommon to see two diseases, considered specifically different, blending their types and forming what may be called cross-breeds or hybrids, as do animals or plants. Measles and scarlet-fever are familiar examples; they are both contagious and epidemic diseases, and yet at times they lose these characteristics entirely. A sporadic case may occur here and there, or a family or two may be attacked in the heart of a city, and yet the disease does not spread, nor is it at such times communicated to unprotected persons brought into the room with it. At other times these diseases are promptly communicated, and spread rapidly as epidemics.

Not only is such the case with scarlatina and measles, but even the contagion of small-pox is more virulent and more communicable at one time than another. We are at this moment in New York driven to the most active sanitary measures by the strong epidemic tendency of this disease.

The blending of typhoid or typhus with marsh malaria is well known and familiarly described during our late civil war as typho-malarial fever.

Genuine yellow, and remittent or bilious yellow-fever, so often spoken of by authors on tropical diseases, show the same confusion of types. The types of so-called yellow-fever present an almost unexplored field—first, because our means of diagnosis heretofore have been very imperfect; and second, because competent observers have not lived long enough in the homes of yellow-fever to become familiar with all its phases.

Dr. Warren Stone, of New Orleans, very justly remarked that when he had seen one epidemic of yellow-fever he thought he knew all about it, but after seeing twenty epidemics he discovered that he knew nothing about it. This is not to be wondered at when we reflect on the history of *continued fevers*. Typhus, typhoid, and relapsing fevers, etc., even within our recollection, were all thrown into one confused mass; and it has only been of late years, through the combined labor of French, English, German, and American pathologists, that these diseases have been separated and classified. Yellow-fever unfortunately has not yet had the same amount of time and ability brought to bear upon it.

When one who has worked through many epidemics of yellow-fever picks up such writers on the subject as Aitken, Wood, the English and American army and navy surgeons, who have not seen the disease at all, or only one or two outbreaks, he is struck at every step by the imperfect descriptions of symptoms, false facts, and groundless theories. When such men as Andral, Louis, Chomel, Murchison, and Virchow, shall pass

their whole lives in the tropics and study all the forms of yellow-fever, we may then be able to separate types, and to say which is portable and which is not. We already know, from numerous authorities, that there are unquestionably cases of bilious fever that resemble yellow-fever more closely than typhoid does typhus fever, and that we have no way at present of deciding between them except by the portability and migrating character of one, in opposition to the *non*-migratory and *non*-portable character of the other. If we accept the theory so ably sustained by Dr. Lionel Beale, as to the manner in which contagion operates in the body, is eliminated and communicated, we may offer a plausible explanation of this blending of types. According to his idea, the origin of all contagions must be sought in the form of *living germs*. They enter the system as particles of germinal matter, or bioplasm, which proliferate and multiply in the body. After a time similar germs are thrown off, are communicated to other subjects, and thus perpetuated. If this theory be admitted, and be equally applicable to all contagious diseases, it is easy to conceive that if two sets of disease-germs enter, or be present in, the system at the same time, they may be so blended as to form cross-breeds, or hybrids, as above stated. When yellow-fever and marsh-malarial fevers, whose germs are bred *outside* of the human system, are brought in contact, the hybrids may result either from a mingling of the *materies morbi* before entering the body, or from the combined operation of the two after entering the body.

Yellow-fever, in many respects, is so anomalous in character as to stand alone; and in nothing does it show its peculiarity more than in its *variability*. It is perhaps *never contagious*, but varies greatly in intensity at different times and places, in its disposition to spread, and more especially in its portability. At one time a port may be thrown open without quarantine restrictions to vessels coming in freely with yellow-fever on board from infected ports, and yet the disease is not propagated; while at another time, with fewer chances, it will take root and spread in almost every place to which it is carried. The two facts of portability and *non*-portability are equally well authenticated, but I know of no example of such perfect contradiction in the history of any *contagious* diseases.

Dr. Nott then spoke of the confirmation of the germ theory of Dr. Beale, as applied to contagious diseases, seen in the behavior of the vaccine virus; the explanation for the apparent contradiction in the portability and non-portability of yellow-fever in different seasons; the link connecting yellow and marsh fevers so closely—as seen in the fever last summer on Governor's Island, described by Surgeon Page; and the anatomical lesions seen in different epidemics of yellow-fever.

Few of the old and experienced physicians of the yellow-fever zone, like Drs. Warren Stone, Dowler, Jones, Chaillé, Harrison, and Hunt, believe in the contagiousness of the disease, and their convictions are based upon facts coming under their own observation. During thirty years' residence in Mobile my experience has corresponded with theirs. No stronger evidence of the non-contagiousness of yellow-fever could be asked than is seen in the history of this disease in the port and city of New York last summer. One hundred and fifty-nine cases occurred on Governor's Island, of which fifty-two died, and nine of those that sickened after exposure on Governor's Island died in the city with black vomit, in filthy, crowded, populous parts of the city, and yet in not a single instance was the disease communicated. I visited nearly all of these cases with Dr. Moreau Morris, the Sanitary Inspector, and can vouch for the genuine character of the disease. Moreover, on the 1st October, 1870, all the sick were taken from Governor's Island to quarantine, without communicating the disease to any one there. In 1856 the facts were still stronger; not only was the yellow-fever confined to a limited part of the island, but attacked all in the rooms on one side of Rotten Row, and none on the other. These facts are entirely in accordance with the opinions of our best writers.

Physicians who have not passed their lives in the yellow-fever zone, and who rarely see the disease, are sure to form hasty conclusions, and cite examples of contagion that will not bear investigation. Epidemic laws, contagion, portability, and local origin are all thrown into one confused mass, without inquiring whether the disease is simply contagious, epidemic, or portable.

In conclusion, the speaker gave his reasons for believing in the *portability* of yellow-fever, and observed:—That yellow-fever should be at one time *portable*, and at another *not* portable, if true, is a fact in the present state of our knowledge inexplicable; but there are contradictory facts attending other diseases which are acknowledged to be contagious and portable, that are equally inexplicable. In a city of 100,000 inhabitants, any number of cases from one to ten thousand may occur of scarlet-fever, measles, whooping-cough, typhoid fever, etc., during an autumn, and no one can assign a reason why the disease should stop at any particular point in such a long scale. Before the discovery of vaccine, there was a certain proportion of persons to escape during the most violent epidemic of small-pox, and a small fraction in every town would be proof against the virus in any form through life.

Each of the above diseases, though perhaps never free entirely from contagion, differs greatly in this characteristic at different times and places.

I have shown yellow-fever to possess several anomalous characters, and on this point of portability it may present an extreme of the law of *variability*. It is just as easy to understand how yellow-fever should be at one time portable, and at another absolutely not portable, as to understand the degrees above alluded to in other diseases, running from intense contagiousness to the very verge, on the other hand, of non-contagiousness.

Dr. Alonzo Clark, in response to the request of the President, said that he would have to make the same excuse that was made on a former occasion, namely, that he had occupied two hours of the day in talking before his medical class, and begged to be excused. On another occasion perhaps he would favor the Academy with remarks.

Dr. A. Nelson Bell, of Brooklyn, was surprised at Dr. Nott's conclusions, and alluded to the epidemic in Rio Janeiro in 1847. It would have been easy, he thought, to have said that the epidemic was carried to the Pacific coast from Rio Janeiro. The vessels which carried the fever to that coast were the "New World" and "Quito." The fever was not well marked at Rio Janeiro, and was called "pulcha" (?); it was first seen at Lima, and called "pellnca." The frigate "Scorpion" and ship "Congress" brought it here in 1848.

He holds that yellow-fever is a living organic poison; and believes not only in the mixed types, but in an intensified poison of bilious and remittent fevers which precede yellow-fever.

Governor's Island was scarcely different last year, the epidemic just succeeding a time of high temperature. The disease recurred there, as the poison was not previously killed.

In Vera Cruz the inhabitants look for "Northers" with joy, which causes the fever to become dormant

To show that other fevers precede yellow-fever, he mentioned that the United States frigate "Susquehanna" went off San Juan, Nicaragua, and laid there with a bad form of remittent fever which ended in yellow-fever, with black vomit; half of the crew were carried off by it.

In conclusion, he thought, with Dr. Nott, that we have no reason to fear this fever in New York. He had yet to learn that a competent vessel inspector had ever inspected vessels in our harbor. He also hoped that the paper would be further discussed.

The President stated that the paper would be further discussed at the next meeting of the Academy.

On motion, the Academy adjourned.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department of the United States Army, from November 5, 1871, to November 18, 1871, inclusive.

Peters, De Witt C., Surgeon.—By S. O. 431, War Dept. A. G. O., November 4, 1871, leave of absence extended sixty days.

Fryer, B. E., Asst. Surgeon.—By S. O. 87, Mil. Div. of the Mo., Nov. 9, 1871, leave of absence extended thirty days.

McClellan, E., Asst. Surgeon.—By S. O. 440, War Dept. A. G. O., Nov. 10, 1871, to report in person to the Commanding General Dept. of the South for assignment to duty.

Caldwell, D. G., Asst. Surgeon.—By S. O. 440, War Dept. A. G. O., Nov. 10, 1871, leave of absence extended sixty days.

Hoff, A. H., Asst. Surgeon.—By S. O. 431, c. s., War Dept. A. G. O., relieved from duty in Dept. of California, to proceed to New York City, and thence to report to the Surgeon-General.

Moffatt, P., Asst. Surgeon.—By S. O. 431, c. s., War Dept. A. G. O., relieved from duty in Dept. of the Columbia, to proceed to New York City, and thence to report to the Surgeon-General.

Medical Items and News.

The First Reunion Dinner of the Alumni Association, Medical Department of the University of the City of New York, was held November 14, 1871, at Delmonico's, and was largely attended. After the good things were disposed of the following toasts were offered and responded to respectively as follows:

"The University of the City of New York: Proud of her past, in the promise of the present, we look forward to the future, with sure confidence that our mother will continue to be a leader in the educational work of the land;" by Rev. Howard Crosby, D.D., LL.D., Chancellor of the University.—"The Medical Department of the University of the City of New York: The first to make New York one of the medical centres of the world. We hail her founders as benefactors to our race;" by Prof. John W. Draper, M.D., LL.D., President of the Faculty.—"The Medical Profession: Its history is recorded in the records of humanity and in the annals of science;" by Henry S. Hewit, M.D., Class of 1847.—"Medical Journalism: An unfettered press the requirement of all true scientific progress;" by Alfred L. Carroll, M.D., Class of 1855.—"Our Alumni of the Army and Navy: We send greeting to our brethren, who have so well sustained our honor in the dangers of war on land and sea;" by Bt.-Col. John Moore, Surgeon U.S.A., Class of 1850.—"Our Absent Brothers: From Maine to Texas, in Canada, and beyond the seas, working for humanity, we give them a word of cheer;" by Prof. D. B. St. John Roosa, M.D., Class of 1860.—"Our Dead: We pause amid the festivity of the hour, to cast a flower upon their graves, and to remember them as servants of humanity, who have attained their reward."—"Woman:

> "Lovely woman, man's fulfilment sweet
> Completing him, not otherwise complete;"

by Prof. F. D. Weisse, M.D., Class of 1864.

The Chancellor in his response believed that the best interests of the different departments of the University would be served when they should all join hands for the good of the parent head. In alluding to the benefits which had already accrued to the Literary Department by having it properly endowed, he indulged in the hope that the Medical Department would not be backward through the exertions of its alumni of being a means to the same end. Prof. Draper gave a very interesting history of the Medical Department, and pictured in his characteristically mild and effective manner the trials and triumphs of its founders. Dr. Hewit made an eloquent appeal in behalf of medicine in its relation to science, humanity, and religion, which was deservedly well received. Dr. Carroll, in responding for journalism, alluded to the necessity of being particular to educate medical men to write. Col. Moore spoke of the difficulties of the army surgeon as pertaining more particularly to his forced isolation from his medical brethren. Prof. Roosa, in an appropriate manner referred to the absent ones, alluding to the many distinguished alumni filling the different places of trust in different parts of the world. Prof. Weisse, in responding to "Woman," made an excellent point in stigmatizing Adam as a monster, who was not made a perfect man until the extra rib was taken from him to form Eve.

The whole affair was an exceedingly pleasant one, and will be long remembered by such as enjoyed the refreshing interchange of sentiments. The dinner was got up in Delmonico's best style, which is the most that can be said in favor of the excellence of any feast.

Edward Devendorf, M.D.—At a regular meeting of the Medical Association of the Eastern District of Brooklyn, held on Nov. 16th, 1871, the following resolutions were unanimously adopted:—

"*Whereas*, It has pleased God to remove from his earthly labors our esteemed friend and associate, Edward Devendorf, a member of this Society; therefore, be it

"*Resolved*, That while we bow in submission to the Divine will, we deplore the loss of a valued friend and a good physician, taken in the prime of his life and usefulness.

"*Resolved*, That while we feel *sorrow* at our loss, we realize that the *deepest grief* saddens the hearts that were bound to his by the closer ties of relationship, and that we extend to the bereaved family our sincere sympathy and condolence.

"*Resolved*, That a copy of these resolutions be sent to the family of the late Dr. Devendorf, and that the same be published in the *Williamsburgh Times* and the Medical Record of New York.

E. N Colt, Sr., M.D.,
G. W. Baker, M.D.,
W. F. Sanford, M.D."

Original Communications.

ELECTRICITY AND THE SPHYGMOGRAPH.

By GEO. M. BEARD, M.D.

READ BEFORE THE ELECTRO-THERAPEUTICAL SOCIETY OF NEW YORK.

In studying the effects of electricity on the human body, it is well to avail ourselves of all the tests and methods of experimenting at our command, and after we have faithfully tried all, our knowledge of the subject must at best be fragmentary and imperfect.

My object in making sphygmographic observations after electrical applications was to see how far the effects of the different currents, by different methods of application, confirmed observations that I had previously made with the aid of the ophthalmoscope and the thermometer. That the cervical sympathetic can be affected for good or ill, by passing either the galvanic or the faradic current through the neck in almost any direction, is rendered more than probable from what is known of the relative conductibility of the tissues of the body, and is demonstrated by physiological and therapeutic experiments.* Equally clear is it that in general electrization the sympathetic is also affected, though probably to a less degree than when powerful currents are localized in the cervical region.

Indeed it may rightly be doubted whether it is possible to apply either current, in any direction, to any part of the head, neck, or spine, without affecting more or less some of the sympathetic ganglia.

But on the other hand I absolutely oppose the dogma that the sympathetic, even in the cervical region, where it is most accessible, can be *exclusively* electrized on the living human body by any method of external application that can be devised. Place the electrodes in such a position that the current, in passing from one to the other, must traverse some one or more of the sympathetic ganglia, and you electrize the sympathetic, but you also electrize other parts that lie in the track of the current, and probably also affect, directly or indirectly, by reflex action, distant parts and organs.

The very marked physiological therapeutic results that follow galvanization of the sympathetic are due, not alone to the action of the current on the sympathetic ganglia, but also to its action on the pneumogastric, on the spinal cord, and very likely also on the brain.

I am a strong friend of galvanization of the sympathetic and the pneumogastric, have experimented largely with these methods side by side with general faradization, and I daily use them; but to determine in any one case just how much the effects are due to the action of the current on the sympathetic is beyond the power of any man who is not especially inspired. My comparative observations have been sufficient to justify me in the assertion that this method of using electricity, while it has been underrated by some, has, by others, been overrated, and that, for a variety of constitutions, and in diseases of debility, it is vastly inferior to general faradization.†

My first experiments with the sphygmograph were made on myself, with the assistance of Dr. L. De Forest Woodruff, to whose kindly co-operation I am indebted for the opportunity of making these observations.

Some of the experiments with the faradization of the sympathetic and general faradization were made with Dr. Rockwell and Dr. Sterling. For assistance in the study of sphygmography, I am under obligations to Dr. Roger S. Tracy. A few samples of my observations are represented in the cuts.

No. 1.—Normal pulse.

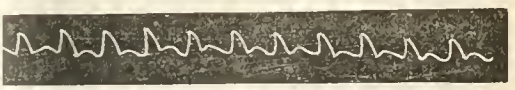
No. 2.—After five minutes' galvanization of the sympathetic.

No. 3.—After ten minutes' galvanization of the sympathetic.

No. 4.—Five minutes after the close of the séance of galvanization of the sympathetic.

No. 5.—After five minutes' faradization of sympathetic.

No. 6.—After nine minutes' faradization of sympathetic.



No. 7.—After twenty minutes' faradization of sympathetic.

No. 8.—After fifteen minutes' general faradization.

No. 9.—Five minutes after close of séance of general faradization.

* For detailed experiments in this line see Beard and Rockwell's *Medical and Surgical Electricity*, 1871, pp. 274–285.

† Clifford Allbutt, in July number of the *British and Foreign Med.-Chir. Review*, has a strikingly able paper on Electro-Therapeutics, the best, indeed, that has ever appeared in any periodical, home or foreign, and discusses, in a very common-sense manner, this subject of galvanization of the sympathetic.

From these experiments I derive the following conclusions:—

1. Both currents—faradic and galvanic—when applied in such a way as to traverse the region of the neck in which the pneumogastric and cervical ganglia of the sympathetic are situated, markedly affect the pulse.

2. The effect is chiefly shown in abruptness of the systole, and in abruptness of the diastole, and in shortening of the interval between the cardiac impulse and the arterial impulse. In general it may be said that the force of the pulse is increased. Its rapidity may be either increased or diminished, according to the length of the application and the strength of the current, and analogy would lead us to believe that the effect must widely vary with the individual. The arterial impulse increased probably from the effect on the vaso motor-nerves.

3. The effect of general faradization was to prolong the systole and the interval between the cardiac and the arterial impulse. The abruptness, and the systole that is so marked during and after faradization through the neck, was not observed after general faradization. A calming, soporific influence is very frequently produced by general faradization, and the effect on the pulse harmonizes with this observation.

4. These effects on the pulse gradually pass away, but are distinctly traceable for a number of minutes after the electrodes are removed.

These experiments, taken in connection with experiments previously made by Dr. Rockwell and myself with ophthalmologists, so far as they go, seem to confirm clinical experience in the medical use of electricity in disease in these three particulars:—

First. Applications that are severe and prolonged may do injury where mild and short applications would be useful. The effect of twenty minutes' faradization through the neck was to very gently increase the rapidity of the pulse and to give great abruptness to the systole and diastole, and the effects on the person experimented on were not agreeable. Instead of being soothed he was irritated.

More than in any other way—more than in all other ways combined—mistakes are made in electro-therapeutics by using too powerful currents; especially is this true of galvanization, either central or peripheral. It cannot be too often repeated, line upon line, precept upon precept, here a little and there a little, that the best results of electrization are obtained, with individual exceptions, by mild currents and comparatively short applications. If the current be very gentle indeed, and stable, the applications to the periphery at least may, in some cases, be protracted for hours with positive advantage and without harm.

It is better to give a little more time and much less intensity of current in all our applications of the galvanic current to any part of the central nervous system, or even to the periphery.

An application to the sympathetic of a strong current violently interrupted for one moment may do temporary harm, where an application of a mild, scarcely perceptible current, for five or eight minutes, might do good. Even the absorption of tumors and the relief of the pains that accompany carcinoma are better accomplished by mild than by severe currents, as I have abundantly demonstrated.*

The temptation to disregard this rule and use painful currents is, even for the experienced electro-therapeutist, very great, and sometimes irresistible.

The dogma, "no smart no cure," which has wrought so much misery in the world, still lingers even among the intelligent. The descendants and near relatives of the man who growled at his dentist for extracting his tooth without pain or bluster, because he had been accustomed to being hauled all around the room during that operation, are yet very numerous. Even in cultivated circles there can be found those who have no faith in medicine unless it is bitter, and no respect for the doctor unless he half kills them.

Then again some patients make a virtue of bearing pain, and will pretend that they do not feel the current when they know they are suffering all the horrors of the damned. Moreover, mercenary patients wish to get their money's worth, and if they pay so many dollars for an application they want so many dollars' worth of agony.

For all these reasons combined, I am, in spite of my experience and caution, continually making the blunder that I here warn against.

A very good device to prevent using too strong currents is to saturate the sponges or cloths of the electrode with plenty of salt water. Salt water is a good conductor, much better than simple water, and will cause the patient to sensitively feel a current, of which, if the salt water were not used, he would not be conscious.

Over the doors of electro-therapeutists, in broad letters, and in full view from the operating chair, I would inscribe this motto: "Better give much too little than a little too much."

Secondly. The difference between the galvanic and faradic currents in their medical action is, in the powers of electrization, mainly a difference of *degree*. The faradic current, when applied for ten minutes, produced much the same effect as the galvanic applied for about half that time. This confirms our observations made by Drs. Roosa, Loring, and Hackley, on the retina, while the sympathetic was galvanized or faradized, and also the experiments of Duchenne. Furthermore, it accords with our daily experience. The prominent effects that follow electrization—relief from pain, improvement of nutrition, increase of appetite and sleep—are produced by both currents.

In electrolyzation this difference in degree amounts to a difference in kind, for the reason that the galvanic current, by virtue of its continuousness, possesses a decomposing power that the faradic current, from the machines in ordinary use, does not possess.

Thirdly. These experiments, taken in connection with the other experiments I have mentioned, give a partial explanation of the very remarkable therapeutic results that are obtained by general faradization.

The faradic current, when applied over the surface of the body, affects the brain, the spinal cord, and the sympathetic—the whole central nervous system—just as the galvanic does in central galvanization; and besides, it traverses and exercises all the organs of the body, and brings into frequent contraction very many of the principal muscles. The effects of faradization of the periphery are felt appreciably at the nerve-centres, and are doubtless reflected in various and complex ways to all parts of the body.

For these reasons it is that in nervous exhaustion following or producing local chronic disease, and in debility associated with obstinate or incurable affections of various kinds, general faradization—even with short applications of five or ten minutes—sometimes accomplishes much more than central galvanization, including galvanization of the brain, spinal cord, or sympathetic.

I have tried the two methods side by side in a wide variety of cases in private practice, and in the Electro-Therapeutical Department of Demilt Dispensary, with

* When the needles are used in order to decompose the tissue—electrolyzation—powerful currents are of course indicated. The above remarks refer only to external applications—catalyzation.

the special purpose of investigating their differential effects, and with absolute impartiality.

I should be very glad if the application of the galvanic current for a minute or two through the neck would accomplish for the majority of cases as much or half as much as general faradization, for I should be saved labor and time; but I am forced to the conclusion, with which many other physicians who have co-operated with me, and who have similarly investigated the subject by themselves, accord, that those who are familiar with electricity in merely localized applications have but a feeble conception of what it can accomplish.

The history of electro-therapeutics of recent times exhibits a tendency to return to the *general* method of using this agent that was adopted in the first eras of its history. The purely localized methods of Masson and Duchenne was a reaction from the indiscriminate use of the electric bath—a method of charging the patient with statical electricity.

Remak introduced galvanization of the sympathetic, which, in the hands of Benedict, Meyer, Drissen, Fieber, Hitzig, Erb, and others, is used in such a way as to be a sort of compromise between purely localized electrization of the periphery and general electrization. Very frequently indeed the electro-therapeutist of the present day galvanizes the brain, sympathetic, and spinal cord, and faradizes some portions of the periphery—all at one sitting. This method is not exactly general electrization, but it is next to it, and in cases where general electrization is indicated may be used alternately with it.

Central galvanization is a term that I have applied to a method of applying the galvanic current in such a way as to affect the whole central nervous system—brain, spinal cord, and sympathetic, and the pneumogastric—all at one sitting. The method consists in placing the negative pole over the pit of the stomach—a broad electrode armed with sponge or flannel may be used and held by the patient, or an adjustable electrode—while the positive pole is applied on the top of the head, the cranial centre, the forehead, the back of the neck, the sympathetic on both sides, and pneumogastric, and down the spine. The séance may occupy from five to ten minutes. This method, as I have demonstrated during the past two years, accomplishes far more than simple galvanization of the cervical sympathetic, pneumogastric, or of the brain, or of the spine, when used separately. I regard it as by far the best method of galvanizing the central nervous system for a very large proportion of those cases where we seek to improve its nutrition.

That there are cases which will be more benefited by localizing the current in the cervical ganglion than by this method of central galvanization one could very readily believe; and yet, with our present ignorance of the precise functions of the sympathetic and the darkness of its pathology, who shall say what these cases are? Who can tell *a priori* with any degree of certainty when the cervical sympathetic needs galvanizing to the exclusion of other portions of the sympathetic and the cerebro-spinal system? Who shall say how much the spinal cord is involved in our supposed diseases of the sympathetic? Who shall say how much the sympathetic is involved in diseases of the spinal cord?

It is a mistake to suppose that healthy tissue is injured by being acted upon by a mild electric current, and that therefore all possible pains should be taken to confine the current to what is supposed to be the seat of the disease.

ANEURISM OF AORTA, INNOMINATE AND CAROTID ARTERIES.

By ELLIOTT COUES, M.D., U.S.A.

This case is noteworthy on several accounts, among which may be named the mediate cause of the disease, the slight inconvenience the aneurism occasioned for many months, and the unusual dimensions that it finally attained. We are furthermore induced to publish this account as the readiest means of reaching a number of medical officers specially interested—this aneurism of Musician Alonzo Fin's (Band of the 4th U. S. Artillery, an Italian, *æt.* 44), having been a prominent item in the medical history of this post during the past two years. The specimen has been deposited in Army Medical Museum at Washington, D.C.

Suspicions of intemperance, as well as of constitutional syphilis, attach to the earlier history of the subject of this article, but nothing definite has been learned on these scores. From the first positive diagnosis of aneurism, which appears to have been made in October, 1869, to the fatal termination of the case, September 12, 1871, the patient's habits, so far as is known, were perfectly regular. He was nominally "on sick report" between the dates just mentioned; but, at his own request, he was generally permitted to perform his duties as musician to within about two months of his death, when the urgency of his symptoms rendered it necessary to forbid all exertion.

What inherent predisposition or acquired tendency there may have been towards degeneration of arterial tissue in this case is uncertain; but the development of the aneurism is unquestionably relerable to the man's occupation. He is known to have played the bass tuba in the military service for upwards of ten years; and the likelihood is that he used the same instrument years before. The connection between the arterial dilatation and the particular kind and degree of respiratory exertion required for this performance is clear and very interesting, especially in connection with the pulmonary emphysema noticed below.

When the case came under the writer's observation, in November, 1870, the *physical* signs of aortic aneurism were manifest, as they had been for a year previously according to the testimony of several other medical officers. Examination of the lungs at that time gave negative results, and nothing was learned in this regard until about two months before death. Aside from the very plain auscultatory indications, the most prominent feature of the case was a visibly pulsating tumor directly over the middle line of the sternum, between the articulations of the first and second pair of ribs, where the pressure of the tumor had caused absorption of the bone, permitting hemispherical protrusion of the aneurismal sac through a circular opening of nearly the size of a silver half-dollar. The skin over the hole was thin and tender, but to all appearance normal.

Up to a few weeks before death, the *rational* indications of disease were very remarkably slight, considering the size and site of the aneurism. The man seemed to be in good health, and certainly performed his daily avocations without apparent inconvenience. He habitually wore a small bladder filled with ice over the sternal tumor; and at one period, while he was under the charge of Acting-Assistant Surgeon H. C. Yarrow, U. S. A., he was treated with iodide of potassium, which, as I am kindly informed by that gentleman, seemed to impede the progress of the dilatation.* Lat-

* This might be considered, perhaps, as bearing somewhat upon the question of syphilis above mentioned.

terly, however, no special treatment was attempted, since nothing beyond obvious hygienic measures promised to be of avail.

After the aneurism had thus for nearly two years grown at such slow rate that it seemed almost stationary, a sudden aggravation of previous symptoms, and the accession of new ones, showed either that the tumor was rapidly enlarging, or else that, with the same slow progress, it at length presented conditions no longer tolerable. The latter is the more probable supposition; for the autopsy showed little indications of recent growth, while, on the contrary, the many firm adhesions to neighboring parts that were disclosed *post mortem* plainly pointed to gradual changes, slowly progressing for a long period. It is probably owing in a large measure to these adhesions, which served to anchor the sac and steady it under the heart's impulses, that the patient's life was prolonged for a time that may be considered unusual in cases of aneurism of the dimensions that this one eventually reached. The only sign of recent change in the parts was a special sacculate dilatation against the trachea, as more particularly noticed further on.

About the middle of July, the present year, Fin began to be troubled with a hacking cough and severe pain in the back between the shoulder blades. Both these symptoms were clearly referable to backward extension of the tumor, and pressure upon the trachea. Very possibly the special dilatation just mentioned occurred at this time; but we cannot be sure of this. Dyspnœa shortly supervened from the pressure upon the air-passages; and obstruction of the œsophagus, as evidenced by dysphagia, came next in order. There was copious expectoration, at first of ropy mucus, then of the same tinged with blood, then of livid muco-purulent secretion of offensive odor. These indications, together with the hectic that awaited upon the last weeks of the patient's life, *seemed* to be signs of pulmonary abscess; and auscultation only served to confirm this impression. But the autopsy showed that the unnatural respiratory murmur was due to emphysema, and the offensive sputa to the ulceration, and finally the sphacelus, of the trachea at the place where it was compressed between the aneurism and the dorsal vertebræ. There is nothing further to note in the ante-mortem history of the case except the mode of death, namely, by rupture of the sac. This occurred at a small, definitely circumscribed spot opposite the tracheal ulceration, where the sac had pocketed, and where the interior of the aneurism was only separated from the tracheal tube by a thin, fluctuating membrane, rent during a fit of coughing. A stream of blood poured into the windpipe, and thence out of the patient's mouth, September 12, 1871.

Autopsy, made in the presence, and by the direction, of Surgeon J. Simpson, U. S. A. The heart is noticeably displaced downwards, rather soft and flabby, pale lividgray in color, and somewhat enlarged, chiefly by ventricular dilatation. The pulmonary arteries are not involved. The lungs are extensively emphysematous, particularly the left one. The aneurism is of the tubular sort; *apparently* all the arterial coats are involved, but this cannot be positively declared, and in fact, is rather taken for granted, viewing the regularity of the enlargement, and the pretty uniform thinness, on the whole, of the walls of the sac. Nevertheless, the tissue, when held up to the light, is diaphanous in some places, and less or not so in others. The dilatation commences at the very root of the aorta, where there is considerable gritty deposit, apparently ossific. This may be the clue to the nature of the degeneration of the arterial tissue, of which nothing further has been ascertained; and, not improbably, this induration of the aorta, just beyond the semilunar valves, may have favored the development of the aneurism by diminishing the resiliency of the artery, and so interfering with the smooth working of the valves. These last, however, appear perfectly healthy. The aneurismal sac is of immense extent, representing the whole of the ascending and transverse aorta; the disease has invaded and occupies also the whole of the innominate, and part of the right carotid,* dilating both these vessels to the calibre of an ordinary aorta, slightly affects the left carotid, and stops abruptly at the origin of both subclavians. Beyond the left subclavian the aorta appears perfectly healthy. The top of the main aneurism is about on a level with the top of the sternum; no trace of the original shape and course of the aorta remains, the whole artery, to the roots of the subclavians, being transformed into a nearly cylindrical sac, with an estimated capacity of over a quart. The sac readily enveloped, to beyond the wrists, both the writer's closed fists, introduced one after the other through the opening made at the summit.

Much of the cavity is occupied by a large fibrinous mass, that very prettily shows the peculiar laminated structure characteristic of these concretions. From some parts of it layers of the substance can be successively peeled off, like the enveloping coats of an onion-bulb. There is another similar but smaller accretion, and there are several fibrinous flakes and shreds in different places—one long shred reaching from the ventricle into the aneurism, forming the matrix of an extensive heart-clot.

As already intimated, the relations of the sac to the sternum in front, and to the trachea behind, are interesting. The constant pulsation of the straining artery has caused absorption of the bone, and effected a complete perforation, circular and smooth-edged, through which the tumor, during life, protruded and pulsated visibly. Near by are smaller indentations, where the bone has been partially drilled through. Similarly, the trachea has yielded at the point of greatest pressure. That tube is extensively ulcerated, several of the cartilaginous hoops being cleanly dissected out, and strikingly suggestive of pieces of whalebone protruding from a worn-out corset. The œsophagus is not affected, having apparently been shoved aside; but in the thickened and indurated connective tissue of the parts the morbid process has gone on to sphacelus. Here is the source of the offensive muco-purulent expectoration; and this is the place where the sac, after bearing so hard upon the trachea as to identify its own with the tracheal parietes, finally gave way. In its consequences, at any rate, if in no other respects, this circumscribed pocketed dilatation may thus be considered as bearing the same relation to the general enlargement, that the whole of a sacculated aneurism not commonly representing all the arterial coats, bears to the artery itself, from whose side it springs.

Fort McHenry, Md., October 22, 1871.

Decease of Scotch Physicians.—Dr. Frazer Thomson, of Perth, expired suddenly in the railway station, October 10th, from disease of the heart.

Robert Buchanan, M.D., Knoxland, Dumbarton, died September 10th, in the 78th year of his age.

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* How much of this artery was involved was not ascertained. For when the parts were removed (as was hastily done under peculiarly trying circumstances), there was no suspicion that this vessel was implicated, and it was accordingly severed too low. But since no pulsating tumor was noticed during life in the neck, it is probable that the dilatation extended up this vessel but little further than is exhibited in the specimen.

THE TREATMENT OF CHRONIC PURULENT AURAL CATARRH.

By CHAS. INSLEE PARDEE, M.D.,

LECTURER ON DISEASES OF THE EYE AND EAR IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

A method of treating this disease which enables the surgeon to apply a remedial agent to each individual case, with entire confidence in its appropriateness, is a desideratum.

That it has not been found, is owing to circumstances, some of which in the future, it is to be hoped, will not intrude themselves so persistently and with such damaging effect.

As a rule, patients do not die while under the care of an aurist, so that he is unable to make the *post-mortem* examinations, from which he would otherwise acquire so much knowledge. However, the profession at large are learning keenly to appreciate the facts: — first, that deafness of varying degree is almost an inevitable consequence of this disease; secondly, that weakened intellectual and physical powers are extremely probable if the disease be of long standing; and, thirdly, that meningitis, cerebral abscesses, uncontrollable hemorrhage, and pyæmia are among the possible consequences, and thus we are led to hope that their invaluable aid in securing *post-mortem* investigation of these cases, in the future, will be freely accorded.

Moreover, the extreme difficulty of making an accurate analysis of existing pathological conditions has had much to do with it. We depend very greatly on an objective examination, which, to a certain extent, may mislead us, because in the examination of the deepest portion of the external auditory canal we can only use monocular vision. This renders it difficult, with any degree of certainty, to estimate the exact relation of parts, their color, or, in fact, any of the changes. A greater or less portion of the membrana tympani usually remains and offers an additional—a mechanical —obstacle to exact observation.

The product of morbid action, the secretion, however, indicates with much greater exactitude the character of the process, and can be always examined.

Now, according to pathologists, the changes, in a general way, are developed in this fashion:—first, there is increased vascularity, swelling, with a tendency to exudation and hypertrophy, and secretion which is mainly mucus. The mucous secretion is a characteristic symptom of the inflammatory stage of the disease, or of an hyperæmic condition of the membrane which lines the cavity of the tympanum. Secondly, these conditions may become modified in this way:—the disease may go on to the development of excessive free-cell formation. The secretion then is purulent.

The tendency of a great number of cases, those occurring in strumous subjects especially, is to relapse into the hyperæmic condition. A case has been under observation, the secretion purulent, and suddenly, from a slight cause, a cold perhaps, or from the application of inappropriate remedial agents, it gives evidence of a modification in the course of the disease. The secretion has changed to mucus. Every one who has had much experience in the treatment of the disease must have observed this fact, and it is probably owing to it that some of us have been taught that a great number of remedies are good for chronic purulent aural catarrh, and told that we must "ring the changes." We may "ring the changes," to be sure, but not select our remedies at haphazard.

The secretion, therefore, indicates the existing pathological condition, and enables us, with considerable certainty, to apply proper remedial agents.

Now the precise object toward which our therapeutic efforts must tend seems pretty clear.

They must tend to check the hyperæmia and set up a healthier action; to control and to limit the excessive development of free-cell formation.

Essentially different applications are required in either case.

All writers agree that thorough cleansing of the diseased surfaces is of great importance. It is absolutely essential. The effects of remedial agents are very uncertain unless brought in direct contact with the diseased parts. Owing to the irregular shape of the middle ear, and the existence (when it is diseased) of numerous little holes and crevices therein, the operation must be performed with the greatest care.

The instruments required to effect the object are, an ear syringe, a Politzer's air-bag, and a cotton-holder.

Syringe the ear carefully and slowly with warm water. The secretion in the external auditory canal will thus be removed. Then fill the ear full of warm water, push a piece of cotton into the meatus to keep the water in, and force air through the Eustachian tube and middle ear by means of Politzer's air-bag. The secretion in the tympanic cavity will be blown into the ext. aud. canal, and can be removed by another syringing. The operation may be repeated two or three times if necessary. Before applying remedial agents, use a soft piece of cotton on the cotton-holder and gently dry the parts. It must be done with the greatest care, otherwise too much irritation may be excited. The cotton does not seem to answer for cleansing purposes, as recommended by some, but for drying after the parts are cleansed.

Remedies are far more efficacious when applied immediately after the drying process. It is best to use remedial agents in a fluid form, and the easiest and most effectual manner of applying them is to incline the head of the patient to one side and then fill the auditory canal to the meatus. The fluid may be permitted to remain for two or three minutes, and then to run out. Applied in this manner it searches out every nook and cranny.

The remedy, as we know, must be selected to accord with the existing pathological condition, as shown by the secretion.

If the case gives evidence of hyperæmia, characterized by the secretion of mucus, use the nitrate of silver. In such cases this remedy is so effectual that a considerable number of them will recover without using any other.

Instil into the ear a solution of forty (40) grains to the ounce of water, and repeat the application every forty-eight hours until the discharge ceases or becomes purulent.

In some cases it may be advisable to increase the strength to eighty (80) grains to the ounce, after the weaker solution has been used continuously for a long time. It is an interesting clinical fact, that after the nitrate has been in contact with the parts for a minute or two, the entire effect of the application is secured, and may be at once syringed out with warm water, thus preventing any stain about the meatus or auricle. Without this precaution unsightly stains are left.

A patient under treatment recently, who presented a perforation of the membrana tympani of about a line in diameter, was cured by one application of a forty-grain solution of nitrate of silver. For two years he had had recurrent attacks of pain, followed by discharge from the ear. The last attack had occurred about six weeks previous, and the discharge (of mucus) had continued ever since. He returned two weeks after the

application was made. On inspection no secretion was seen, and the perforation had closed. His hearing had increased from four (4) to ten (10) inches for the watch.

I have observed two similar cases, but, of course, they are exceptional. We are treating a disease which is exceedingly chronic. Many cases have resisted careful treatment for a year or two years, and if we can reduce the time of treatment to weeks even, it is something to congratulate ourselves upon.

The appearance of a discharge of pus is by no means to be regarded as a discouraging circumstance. Indeed, as a matter of clinical experience, it is safe to assert that under the use of proper remedial agents we may confidently expect a gradual diminution in the quantity of secretion and a reasonably rapid recovery. But the treatment required is different. There is excessive development of free-cell formation, which, as we have remarked, is a process to be controlled and limited. The end is best attained by the use of weak astringents.

Sulphate of zinc, acetate of lead and alum, are all valuable agents, and usually are quite reliable.

Inasmuch as the desired effect is that of a weak astringent, other remedies which cause it may answer the purpose quite as well. Either of the above-mentioned remedies may be used in proportions of from two (2) to four (4) grains to the ounce of water, instilled into the ear in the same manner as recommended in the first class of cases. These remedial agents should be applied once a day, after a thorough cleansing.

It is obvious that the care of such cases must be intrusted only to the surgeon. An incompetent person might prolong the disease instead of assisting to remove it. Non-professional persons should not be permitted to manipulate them at all.

Of course, constitutional treatment, if required, must not be overlooked. Neither should be any morbid condition of the pharynx. Attention to the general health and to the pharynx, in a large number of cases, is necessary.

Thus, to insure success in the treatment of chronic purulent aural catarrh we may,

First. Recognize the existing pathological condition as shown by the secretion.

Secondly. Carefully and properly cleanse the middle ear before introducing remedial agents.

Thirdly. Select the remedy to accord with the principle involved in the first-named condition of success.

Fourthly. Never intrust the manipulation of a case to the patient or to his friends, but personally attend to every detail.

Fifthly. Use proper treatment for the pharynx, and whatever constitutional disturbance may exist. It is an important adjuvant to the local treatment.

NEW YORK, No. 72 WEST 35TH STREET.

CUNDURANGO.

Aslepias—Mata-perro—Tumbo-Grande—Tumbo-Chico.

THE NAME, HISTORY, WHERE FOUND, MEDICAL PROPERTIES, ITS ACTION, THE DECOCTION, FLUID EXTRACTS.

BY JOHN J. CALDWELL, M.D.,

BROOKLYN, N. Y.

CONCERNING your editorial of the 15th on Cundurango, I will submit the following report:—

In relation to the article of the *Herald* of the 10th, on the above-named subject, I am credibly informed that the writer is not a physician, and wrote from purely personal motives and had no desire to give true information. Many of his statements have no foundation in fact. Dr. Ayers, of the U. S. S. *Resaca*, sent by the Navy Department to investigate Cundurango, has not yet made his official report, and until he does judgment ought to be withheld.

Cundurango is of the Quichua Indian dialect, meaning cundus (condor or eagle), ango (vine), eagle vine, because of the great height it attains, and of the fact of the elevated plain on which it is found on the Andes mountains, in the Province of Loja, Republic of Ecuador, S. A., being five or six thousand feet above the level of the sea; there it is found growing and clinging to the trees, often the cinchona, spreading like the honeysuckle.

Mata-Perro (dog-killer), or the true Cundurango, can be distinguished from the other varieties by exhibiting in a transverse section a yellow resin, contained in cells, which does not appear in any of the other varieties.

Tumbo-Grande (or large fruit). Tumbo-Chico (or small fruit). The former being the female and the latter the male. The fruit of the Mata-Perro is about the shape and size of a gumbo, and it is of this variety that the story is told of an Indian woman who endeavored to poison and put her husband out of suffering from a cancer of the stomach. Much to her surprise, it eventuated in his cure. It was this fact that brought this remedy into notice, through the instrumentality of the Jesuitical priests, of that far-off land, and no doubt, as Dr. Squibb justly remarked, that these same learned prelates have a full historical description and classification of this as well as the rest of the flora of South America.

Tumbo-Grande is so called because of its large fruit, being the size of a watermelon. These barks are mostly used by the Indians, and beyond a doubt the whole plant is medicinal, and useful for its great alterative qualities. The bark of the Tumbo-Grande is rough and compact, minus the yellow resin. They present to the tongue an aromatic impression—Gentian and Sarsaparilla mixed, the Mata-perro being more pungent. When green and incised, the bark, a milky substance, which soon becomes inspissated and has the same bitter taste, from its many like qualities to the milk-weed.

Dr. Alcides Destruge, a medical gentleman of much culture and reputation of Guayaquil, has classified it as one of the asclepiades.

The collection of these barks, like the cinchona, is made by the natives, who are often hostile: this, together with the ferocity of the wild animals of these wildernesses, makes it a matter of great risk. I understand from good authority that of the many hundred cases treated by the fluid extract, offered and administered by Messrs. Bliss, Keene & Co., as yet there is not one successful cure of cancer wholly referable to this remedy. In this use of the drug I fear the profession will be greatly disappointed.

We must be impartial, and give every remedy of repute, in this terrible incubus to the human family, an honest trial, for if there ever was an opprobrium to the medical world this great malady deserves the appellation.

In conclusion, I will briefly report, that a few cases of Syphilis, treated by the Tumbo-Grande in this office, during the past few weeks, have made a remarkable progress for the better.

My mode of administration in the use of the decoction of the bark is fifteen to twenty grains to the oz., three times a day; in a few days the patient invariably complains of irregular, rambling pains all over the body, though not very severe; the ulcers begin to granulate, with a healthy appearance, and the skin trouble manifestly to improve. In one case of soft chancre with

bubo, the result was most happy on this treatment. The ulcer and bubo disappeared inside of two weeks. Further experience I will give in detail after due time and trial. May we hope to learn from other medical gentlemen their experience in this new medicine?

Such has been my experience with Tumbo-Grande. But I am firmly convinced that when we become thoroughly acquainted with the Mata-Perro, its medicinal and alterative qualities will be found far greater than any other of these species. For the information of the medical fraternity, I will state that the bark I have used was obtained from F. Bredt & Co., 178 Fulton st., New York.

ANALYSIS BY DR. ANTISELL.

Chemical Analysis of Wood and Bark.

Ratio of wood and bark { bark.....49.72 / wood.....50.28

100 average of three examinations.

Constitution of bark.....		100 parts.
Moisture.....	8	
Mineral salts.....	12	
Vegetable matters.....	80	
	—	100

These vegetable matters were separable, by the usual methods, into the following:—

Fatty matter, soluble in ether and partially in strong alcohol.....	.7
Yellow resin, soluble in alcohol.....	2.7
Starch, gum, and glucose.....	.5
Tannin, yellow and brown coloring matter, and extractive.....	12.6
Cellulose, lignine, etc.....	64.5
	81.0

On distillation, no volatile oil or acid was obtainable, no crystalline alkaloid or active principle was separable by the usual method of proximate analysis. Whatever medicinal virtues the plant may possess must reside either in the yellow resin or in the extractive. The former is soluble in alcohol, the latter in water. In the water decoction, some of the resin is diffused, but the greater portion of resin is not extracted by water. The therapeutic portion of the plant, judged from analysis, is among the aromatic bitters.

Reports of Hospitals.

CHARITY HOSPITAL, BLACKWELL'S ISLAND, N. Y.

TRANSPLANTATION IN A CASE OF SERPIGINOUS PHAGEDÆNA.

By E. F. RODRIGUEZ, M.D.,

HOUSE SURGEON.

Richard C——, æt. 19, single, tailor, native of this city, was admitted to Ward No. 10, male, December 14, 1870. Five or six weeks previously he had contracted two chancres, which appeared on the left side of his glans penis one week after his last connection. These sores commenced as two little white vesicles, which in the course of two days became pustules, broke, and became covered with a crust. They were sited upon an indurated base, were pretty deep and indolent, and secreted freely. They also presented a slight tendency to phagedæna. By the local use of a solution of nitrate of silver first, and then of the lotio nigra, the ulcers thoroughly healed in the space of one month, and left two small hard nodes underneath the cutis. Five weeks after their appearance, a very large bubo formed in his left groin, extending all along Poupart's ligament. It opened spontaneously after passing through the usual inflammatory stages. Soon it took on the characteristics of serpiginous phagedæna, and became obstinate to treatment. Three weeks after the formation of the bubo (that is, eight after the appearance of the chancres) he had a sore throat, alopecia, and commenced to be subject to wandering pains along his limbs, which appeared generally in the evening. Six months after the primary sores a pustular ulcerative eruption broke out simultaneously on his legs, which was effectually managed by the administration of the iodide of potassium in very large doses. Since then his cervical glands have frequently become enlarged and painful (although they did not suppurate); and the patient has at times been suffering from pretty severe nocturnal osteoscopic pains.

With regard to the different plans of treatment put in practice during the patient's hospital time, it will only be necessary to state that they were very numerous, and often contradictory.

The patient was etherized four different times, and his ulcer thoroughly cauterized with the pure nitric acid. One month before I took charge of the patient epidermic scales were transplanted over the ulcer, with no good results.

The foregoing particulars will clearly show the character of the primary sores. *They were mixed chancres.* As chancroids they gave rise to the formation of a virulent bubo (on the same side), a bubo which was attacked by serpiginous phagedæna. As chancres they (the mixed sores) gave rise to the secondary symptoms referred to, and opened the way for the commencing tertiary manifestations. Although the patient denies having had any roseola, yet we may, by calling to our mind the many instances where it passes unperceived, justly suppose that he had it.

With regard to the intractable character of the bubo, we cannot fail to see the close influence which a syphilitic blood will exert. But while admitting that it will keep up the chronicity of the ulcer, and make it refractory to treatment, yet we cannot believe it may change *its chancroidal* features. In fact, the serpiginous phagedenic ulcer will not be converted into a tertiary syphilitic one. We need not, with regard to this, call to our mind the numerous well-recorded cases of chancroids affecting syphilitic patients, which, although often very intractable, preserved their chancroidal characteristics throughout their existence.

When I first saw the patient—October 1, 1871—the ulcer in his left groin was unhealthy looking, and four inches long. At its widest part it measured two and a half inches, and half an inch at the narrowest. It extended from close to the root of the scrotum upwards and outwards, along the crural ligament, in a serpiginous way. Close to its lower border two smaller ulcers, three-quarters of an inch in diameter, were seen. A tonic and nourishing plan of treatment was adopted, the solid nitrate of silver was applied over the flabby granulations, and in this way a healthy surface was obtained.

Dr. C. C. Lee, of this city, my visiting surgeon—to whom for his valuable and kind suggestions I am greatly indebted—proposed to me to perform transplantation.

October 4, 1871.—Keeping in mind the ideas adopted by Dr. F. H. Hamilton in regard to this operation, two pieces of skin, each half an inch in diameter, were taken from the front of the left thigh, at the junction of the lower with the middle third, the vascular stratum being reached. Each of them was divided into four parts. Of these eight *sub-pieces*, six were

gently laid down over the principal ulcer, and one respectively over each of the smaller ones. Short straps, greased with simple ointment, were applied over the ulcers merely to protect them, and the patient was ordered to keep constantly the recumbent posture. The left thigh was to be kept somewhat semiflexed, to relieve the considerable tension of the integuments at the groin.

October 8, 1871.—The straps were for the first time removed. The two smaller ulcers were completely healed, and the large one greatly diminished in size (three and a quarter inches long). Of the six pieces of skin placed over it, two were destroyed. They had become, perhaps, on account of their irritating presence, the centres of the cicatrization which was carried on toward them from the margins. But as soon as the approaching integument came very near them, they were seen to spread and become like a grayish-white membrane, which advanced outwardly and eventually completed the cicatrization. Every morning the straps were renewed and the ulcer cleansed.

October 27, 1871.—Cicatrization was completed—just twenty-three days after the operation.

As the case appears to be very successful, and no internal active remedy was administered, it is thought proper to communicate it to the profession.

Progress of Medical Science.

Ipecacuanha in Epistaxis.—Dr. John Shrady, of Harlem, N. Y., has successfully exhibited ipecacuanha in several severe cases of epistaxis, especially in the form associated with chronic alcoholism. In one instance, where from a previous experience plugging the posterior nares was strongly objected to, he used the vinum ipecacuanha in teaspoonful doses until free emesis was produced, with the result of arresting the hemorrhage in fifteen minutes.

Soda Mint.—The very popular "soda mint," so much employed as an antacid and carminative for overfed infants and dyspeptics, was originally a favorite prescription of Dr. George Norris, of Philadelphia. His formula was the following: R. Sodæ Bicarb., ℥ ss.; Spt. ammon. aromat., ℥ j.; aquæ menthæ piperi Oj. M.—Dose: from a dessert-spoonful to a table-spoonful for adults; from half to one teaspoonful for infants.—*Journal of Pharmacy.*

Carbolized Gargle for Diphtheria.—Charles Sedgwick, Jr. (*New Remedies*), recommends the subjoined formula: Carbolic acid, 20 minims; acetic acid, ʒ ss.; honey, tincture of myrrh, each f. ʒ ij.; water, to f. ℥ vj. The acids to be shaken together well before the other ingredients are added.

Carbolized Mixture for Zymotic Diseases.—Dr. Alex. Keith (*New Remedies*) advocates the following: Take of carbolic and acetic acids, each from 1 to 1½ f. drachms; tincture of opium, chloric ether, each 1 f. drachm; water, to 8 f. ounces.

A tablespoonful every four hours until the fever subsides.

Carbolized Glycerine.—Glycerine, 100 parts; carbolic acid, 1 part. Mix. For impetigo, chronic eczema, lichen, prurigo, and pemphigus.—*New Remedies.*

Painless Extraction of Teeth.—Dr. A. C. Castle (*Dental Cosmos*) observes that he has for thirty years adopted the plan of obtunding or benumbing the extremities of the temporal nerves, for painless extraction of teeth from their sockets, with complete success, never having used or countenanced the exhibition of chloroform, ether, or nitrous oxide gas for this minor surgical operation. The benumbing, or *mechanical anæsthesia*, of the temporal branches of nerves obtunds the whole nerve to a sufficient extent to allow the teeth to be removed with sensation so slight, which, if not attending a special surgical operation, would scarcely be noticed by the patient. One of two modes may be adopted. Application of ice to the temples, which is somewhat distressing, the sensation of cold striking deeply. The other, to which he gives the preference, is done by an assistant, with each of his middle fingers pressing with persistent firmness and force into the fossa or hollow behind the ridge of the temporal bone, which forms the external bone circle orbit of the eye. Pressure for one minute is all that is necessary. The practice is as simple as it is harmless, and leaves no after unpleasant sensation to annoy the patient. It is an instinctive method often adopted by people themselves, who press their temples with their fingers to relieve themselves temporarily of the acute paroxysms of nervous headache. This temporary pressure, with sufficient force, is all that is required to remove teeth painlessly.

Membranous Enteritis.—J. M. Da Costa, M. D., Phila. (*Am. Journ. Med. Sciences*), describes a complaint, under the name of *membranous enteritis*, with seven cases, which he believes is but very incompletely known, and scarcely recognized as a separate disease by the profession. The malady in its essential features consists of a painful and obstinate affection of the intestines in which membranes or skins are voided. It is not very common, yet it is not very uncommon; for there is scarcely a practitioner who, when his attention is directed to the subject, cannot recall one or more examples; and it is not unusual to meet with references to isolated instances in our periodical literature. Unless he is much mistaken, the ailment is the discharge of the inner coat of the bowels, of which Paulus Ægineta speaks; it is, he is more certain, included in the fanciful delineation of infarctus by Kaempf. Good speaks of it as diarrhœa tubularis; Todd describes it as follicular colonic dyspepsia; Sir James Simpson, as follicular enteritis; Cruveilhier and Laboulbène, as pseudo-membranous enteritis; Powell, impressed with its painful character, calls it "painful affection of the intestinal canal;" and very recently Whitehead has treated of the malady in his notes on mucous disease, besides other authors.

The disease is characterized by attacks of abdominal pain, followed by the discharge of what looks like skins or membranes, sometimes coming off in the shape of moulds or long tubes. There may be but one attack, but this is very exceptional; much more generally one paroxysm is followed after an interval of months by another, and yet another, and at times the disease may become almost continuous, with occational distinct excerbations. A week, in his experience, is the shortest time for an attack to last, and distention, sense of burning, colicky pains, and at times a sluggish state of the bowels, precede the discharge by days; after this has taken place, the abdominal soreness lessens, the feeling of rawness passes off, and the patient is well, though he is apt to have a coated, flabby tongue, to remain dyspeptic, and be readily fatigued. After a few seizures the patient may gradually recover, yet is never robust; or the disorder becomes persistent. He states that the treatment of the malady must be discussed from a two-fold point of view: 1st. The treatment most suitable during the

attack; 2d. To prevent recurrence, or, in protracted cases, to keep the membrane from constantly forming. The diet should be nourishing, but not excessive in quantity, for the patient's digestion is feeble. As a rule, he orders eggs, milk, bread, and solid food, which is better borne than liquids; tea, coffee, and alcoholic stimulants are only admissible in very small quantities. Great attention should always be paid to the action of the skin, and baths, followed by systematic friction, are very useful. One of the most important points in the treatment of these cases is to prevent the patient from using purgatives. To prevent the formation of membrane, he has seen the best results from a steady course of iron, particularly of the perchloride. Cod-liver oil may aid in some cases, but it is generally not well borne. Acids sometimes appear beneficial. Injections have been highly recommended, and those of nitrate of silver especially. But, after all, their use is very limited, for the disease is not generally low enough down to be reached by them. Electricity he has not as yet employed sufficiently to express a decided opinion about it. Cumming has published an enthusiastic account of its wonderful effects, especially when conjoined with the pitch pills. He recommends that the battery be employed for a quarter of an hour daily. In conclusion, he says, concerning the management of the vexatious disease, that the physician should always search for what may be possibly an exciting cause, and seek to remedy it.

Nitrite of Amyl.—H. C. Wood, Jr., M.D., Phila. (*Am. Jour. Med. Science*), remarks that there is one disease in which nitrite of amyl theoretically ought to be of great value, viz.: tetanus. There is scarcely any doubt but that there exists in that affection a condition of exalted functional activity of oxidation, and consequently of temperature of the body, so that the nitrite would meet a second indication. There is one fearfully painful affection, namely, angina pectoris, in which a considerable amount of clinical evidence shows the nitrite of amyl to be of very great value. Quite a number of cases have been reported, in which the inhalation has been of very great service in affording rapid and permanent relief. He has had an opportunity of using the nitrite in one case of severe suffering connected with valvular disease, and the effect in relieving the heart pang after the failure of other remedies was astonishing. In regard to the method of administration, he is not aware that the nitrite has been given otherwise than by inhalation. Its totally insoluble and highly volatile nature renders it unfit for exhibition either in solution or mixture; but he does not see why it could not be given dropped upon a piece of sugar. In cases of tetanus, it seems plausible that the remedy would be more efficient if given by the stomach in frequent small doses. When it is to be inhaled, five drops should be placed upon a handkerchief and held close to the nostrils, the pulse being closely watched and taken as a guide for the continuance or withdrawal of the drug. If necessary, the dose should be repeated. When giving it by the stomach, he does not believe it would be safe to start with more than two drops until the effects of the medicine so administered have been more studied than at present.

Cold Water as an Oxytocic.—S. H. Garvin, M.D., Louisville, Ky. (*Am. Jour. Med. Sciences*), alludes to the known therapeutic value of cold water, and says that its power as an oxytocic has been overlooked, or, at least, has not been insisted on as it should be. Its efficacy in exciting contraction of the uterus in post-partum hemorrhage is well established, and four cases, selected from a number of others successfully treated by this agent, afford ample demonstration of its value as an oxytocic.

Treatment of Climacteric Insanity.—Dr. W. J. Conklin, Asst. Phys. to the Southern Ohio Lunatic Asylum, Dayton, Ohio (*Am. Jour. Med. Sciences*), says that, like all suicidal patients, there are two periods of especial danger: 1st. Early in the morning, when they are very liable to give way to their morbid impulses. Often a lunch before rising will, for the time being, scatter all such notions. 2d. During the period of convalescence, when everything seems to promise a speedy and complete recovery, the nurses are apt to be less watchful, and the patient may make a successful attempt during a temporary exacerbation to which all are so liable. The friends must in all cases be warned of the danger of suicide, even if no such intention appears on the surface. In many cases opium administered in large doses proves a very valuable agent, but a drawback to its use is the liability to the formation of the opium-habit—a liability stronger at this than at any other period of life. While the depression is most marked, or during the paroxysms of excitement, the following prescription is useful: R. Chloral-hydrat., potassii bromidi, āā ʒ ij.; spts. frumenti, syrupi simplicis, āā f. ʒ j. M. Sig.: Tablespoonful in a wine-glassful of water every four hours. A glass of ale will often act like a charm in calming an excited patient. Tonic medicines constitute the chief therapeutical means. He has seen, frequently seen, great benefit result from the administration of small doses of quinia in combination with the pyrophosphate of iron and Horseford's acid phosphates. Constipation is almost invariably present. Cathartics often fail to move the bowels, and occasionally do much harm. The real seat of the torpidity is in the brain, not in the intestines; in fact, when purgatives have failed, a good dose or two of opium will often accomplish the object; as a rule, gentle laxatives and tonics will accomplish all that is necessary.

A Means of Arresting the Spread of Small-Pox.—John Day, M.D. (*Australian Medical Journal*), in a paper "On a Means of Arresting the Spread of Small-Pox," read at a meeting of the Medical Society of Victoria, explained his *modus operandi* of perfectly destroying the germs by which small-pox is propagated. His belief is, that the virus of small-pox is always associated with pus-cells, and the only way in which it can be destroyed is by oxidation. He proposes the use of peroxide of hydrogen as the agent for rapidly and thoroughly oxidizing and destroying the virus-germs given off from the bodies of small-pox patients. Peroxide of hydrogen, which, according to Schönbein, is composed of antozone and water in a state of chemical combination, undergoes a remarkable change in the presence of blood, and by mere contact with the corpuscles, its antozone is rapidly transformed into ozone—the oxygen of combination.

The particular form in which he would recommend the use of peroxide of hydrogen is that known as ozone ether—being a compound of absolute ether and peroxide of hydrogen. It is highly volatile, and may be diffused even through very large apartments, such as the wards of hospitals, by means of a spray-apparatus. It quickly destroys sulphuretted hydrogen and other noxious gases, and, when once diffused, it is very persistent in its action.

As collodion, cold cream, and lard are occasionally used as topical applications in the treatment of small-pox, he mentions that ozonic ether can be mixed with any of these substances without undergoing any perceptible change in its chemical properties.

A Case of Hypertrophy of the Gums and Alveolar Processes.—P. H. MacGillivray, M.R.C.S., Surgeon to the Bendigo Hospital (*Australian Med. Journal*), records a novel case of this affection, with photograph, which has been occasionally met with by surgeons. It is, however, so rare, that he believes only four cases have been hitherto recorded. The first occurred in the practice of Mr. Pollock, and is described in *Holmes's Surgery* by Mr. Salter. The second is mentioned in *Gross's Surgery*. A third case occurred in University College Hospital, under the care of Mr. Erichsen, in 1867. A fourth case is referred to by Mr. Salter, as having been described by Dr. Harrison (it should be Dr. Waterman), as found in the *Boston Medical and Surgical Journal* of April 8, 1869. Dr. MacGillivray's patient, a widow, aged 29, differs from those of Dr. Gross and Mr. Pollock in being, in other respects, perfectly healthy and well formed. For its complete removal three operations were required. Examined microscopically, the removed portions were found to consist entirely of an increased development of the ordinary gum structures.

Injection of the Arteries and Veins of Viscera.—The veritable injection-composition of Lieberkühn is as follows: Take 2 lbs. of virgin wax, and 1 lb. of resin (colophonii depurati), break in small pieces, melt, filter through a suitable linen cloth, pour into a stone mortar previously warmed, and add the necessary colors; for the arteries have pure vermilion, or cochineal; for the veins, Venetian verdigris, or Prussian-blue; pulverize the colors well with a pestle, pour into small pan, and gradually heat.—*The Clinic.*

Thrombosis and Embolism of the Bones.—Dr. H Mollière, of Lyons, has been making some important observations on the above subject. Eight cases in all are reported, of which two were coincident with infarction of the spleen and kidney, one of the brain, one of the lungs, etc. In the first case a firm clot was discovered in one of the lumbar arteries, at the point where branches were given off to the vertebræ, where it was firmly impacted, the calibre of the vessel beyond being lessened. Another clot was found in one of the small arteries of the spongy tissue, at the point where it entered the bone. Incisions through the body of the vertebra showed yellowish-white patches, which were sharply defined from the reddish coloration of the parenchymatous portion of the bone.

Microscopic examination showed alteration of the medullary substance, its elements being in process of fatty degeneration. Several of the vertebræ were enlarged, and a section made near the surface showed a network of anastomosing capillaries, which were distended with blood-corpuscles.

Case VIII. was a female, who died of leucocythæmia attended with multiple visceral infarctions. Clots were found throughout the arterial branches, and a section of the last dorsal vertebra presented, near its centre, a puriform caseous mass, quite round, and leaving behind it, when washed out by a minute stream of water, a cavity large enough to contain a pea, having rough and bony walls.

Experiments calculated to reproduce embolism and infarction of the bones have given results which agree with the preceding observations, the more so as it is easy to examine the infarctions in their first stages, and to ascertain the existence of the initial hemorrhage, which Dr. Mollière declares to be the first result of obliteration of the vascular supply of the spongy bones.

The different pathological facts analyzed by the Doctor in his paper permit the conclusions: 1. That infarctions of the bones exist as well as in the case of the organs; 2. That these are equally caused by thrombosis and embolism of the capillaries; 3. That these infarctions proceed, like others, by three stages: congestion, hemorrhage, and degeneration.

These facts are of great importance in respect to the etiology, as yet so obscure, of several diseases of the bones, and the generalization of certain morbid productions of bony tissue, such as carcinoma, sarcoma, and tubercle.—*Gazette Hebdomadaire.*

The Food of Paris during the Siege.—M. Payen tells us (*Courr. Méd.*) how the great city was able to find, after the complete exhaustion of its ordinary food, sufficient alimentary substances to nourish 2,500,000 persons for 100 days. In the first place, what would at other times have been used for manure was all turned to account. M. Payen praises much the preserved Australian beef; it had quite the taste of fresh beef when taken from the can. A manufacturer near the Gobelins, during the siege, found means to contrive a food with dried calf-skin. M. Payen pays full justice to all the eminent men who have contributed to render popular the use of horse-flesh. It appears that white of eggs used for the impression of colors was sold at the end of the siege to make fried eggs withal. Paris had large quantities of this albumen in December, 1870. This was put into soups, &c. Payen remarks that travellers and sailors may take with them, in a dry state, always plenty of white of eggs. Gelatine was preferred with a little gooseberry vinegar, and was much used as a condiment at the end of the siege.—*The Doctor.*

French and German Mineral Waters.—The *Gazette des Eaux* is cited in the *Lyon Médical* as giving a good description of the French mineral springs, as compared with those of Germany. France is richer in sulphurous waters, Germany in salines. Nauheim, Hombourg, Wiesbaden, Kreutznach, Kissingen, and Baden-Baden are all hydrochloric-acid salt springs. In France there are none such very renowned. Effervescent waters, such as Schwalbach, are found in France at Forges and Bagnères de Bigone, which latter is ferruginous also. In Germany, Heilbrnn, Wildbad, and Kreutznach are celebrated for their iodine and bromine waters. In France such waters are found in Niederbronn, Marlioz (Savoy), and also at Saxon (in Switzerland). Ems, in Germany, the sole spa where there is alkaline soda-water, cannot compare with Vichy in treatment of gastralgia, obstructions of the liver and spleen, and gravel, gout, and vesical catarrh. As to the treatment of diseases of the respiratory organs, the Eaux Bonnes and Cauterets sulphur springs are most useful. Uterine diseases are well treated in these last-named baths. Diseases of the larynx are well treated, also those at the Raillère spring. Plombières is famous for nervous diseases. The waters of Kissingen, in Bavaria, have obtained a reputation in obesity, and this is well treated at Lamotte (Isère), where there are springs with hydrochloric and salts.—*Ibid.*

Koumiss.—The use of Koumiss may be regarded as a variety of "the milk cure." Koumiss is prepared by the fermentation of mare's milk. It is a sweetish acidulous tasting liquid, which can be taken in large quantities much more easily than other forms of milk. It is the chief diet of a hardy race on the steppes of Russia, near the Lake of Baikal, where, it is said, consumption is unknown. This exemption from a dire disease attracted the attention of the Russian faculty, and of the government. Establishments for the Koumiss cure were opened in other parts, and a knowledge of the method of treatment is spreading over Europe.

Some of the details related to us by Russian friends are very interesting. An abstract of a paper on "Koumiss," by Dr. Jagielski, appeared in the last number of *The Doctor*, and an article by the same author was some time since published in the *Food Journal*. The difficulty of transport, and the impossibility of obtaining mare's milk in this country, has led to the preparation of Koumiss from cow's milk. This was no easy task at first, but has at last been accomplished by Dr. Jagielski, who has, by repeated experiments, produced from cow's milk a Koumiss, the counterpart of that made from mare's milk.—*Ibid.*

Catheter Removed from a Female Bladder.—Dr. W. T. Briggs, of Nashville, Tenn. (*Nashville Journal of Medicine and Surgery*), reports a case of escape of catheter into the female bladder during its use for the relief of retention of urine. It was removed by the dilatation of the urethra with a sponge-tent, and the employment of dressing forceps.

He also, in 1864, removed a catheter from the bladder, two weeks after its entrance, by dilatation of the urethra, with the bougie and forceps. Dr. Briggs remarks in conclusion, that in the *Medical Facts and Observations*, published in London in 1791, by William Ford, is possibly the first case on record.

On Extraction of Cataract.—Dr. N. J. Martinache, late Master of Clinic of Sichel and Wecker, Paris (*Pacific Medical and Surgical Journal*), believes the true operation for cataract is the extraction of the lens in the capsule. By doing so, no irritating spur is left in the eye, and no danger is to be feared after the operation; the healing process is more rapid, and the power of sight is greater than in any other method. He feels confident that in the future, and before a long time, the only operation performed will be the extraction in the capsule, without any iridectomy.

Placenta Prævia Treated by Digital Compression.—Dr. R. H. Plummer, of Dixon (*Pacific Medical and Surgical Journal*), successfully treated a case of placenta prævia by digital compression. The compression was kept up until the head of the child advanced, which took the place of the fingers in producing the necessary compression.

Notes on Chloral.—Robert F. Fairthorne (*Am. Jour. Pharmacy*) gives some of the physical characteristics of hydrate of chloral and its behavior when brought in contact with other substances. Its aqueous solution produces a dense precipitate when mixed with solution of subacetate of lead.

The hydrate is readily dissolved by alcohol, ether, oil of turpentine, benzole, bisulphide of carbon, and the fixed oils. The solution in the last-named article might prove of value to the physician as a topical application, perhaps available in neuralgia or gouty affections.

When equal parts of camphor (in small pieces) and hydrate of chloral in crystals are shaken together in a vial, and allowed to stand, they become fluid, forming a clear solution. This might also be of use as an external remedy.

When hydrate of chloral and sulphuric acid are mixed, a great reduction of temperature takes place. Both pure chloral and its aqueous solution dissolve morphia freely. Quinia is soluble, to a considerable extent, in a strong solution of the hydrate, six grains readily dissolving in one and a half fluid drachms.

Cinchonia, strychnia, veratria, aconitia, are also soluble in the same menstruum.

When chloral and glycerine are mixed a crystalline substance is formed in a few hours. Chloral is a good solvent for camphor or for crystallized carbolic acid, which it deprives of odor to a great extent, and renders it quite soluble in water.

If caustic soda is added to the mixture of chromic acid and chloral, a bright green color is produced. With solution of potassa in considerable quantity, a blue color occurs.

When alcohol is mixed with solution of bichromate of potassa and nitric acid, and heated, after caustic soda is added in excess, a green color is produced which quickly changes to brown.

Mr. Fairthorne has placed these reactions together so as to compare them with one another, thinking that they might possibly lead to the discovery of a test for chloral.

Hæmostatic Properties of Alnus Incana.—Thomas R. Dupuis, M.D., Prof. Botany in Royal College of Physicians and Surgeons, Kingston (*Canada Lancet*), recommends the Alnus Incana (Tag alder), so common in the States and Canada, as an excellent hæmostatic. He has prescribed the bark both externally and internally, and has never observed any ill effects follow its use, except occasionally nausea and vomiting when taken too freely. Four cases are related—three of wounds and one of serious epistaxis—which were successfully treated with this remedy. He has also prescribed it in hæmoptysis and in menorrhagia with benefit; it is also well adapted to any internal or external passive hemorrhages in which astringents are generally esteemed beneficial.

In closing his article, Dr. Dupuis solicits for the decoction of the bark of *Tag alder* a trial from all those who may be interested in the development of the medical remedies of our own country.

Treatment of Diabetes.—Dr. G. Moore, of Hastings (*British Med. Journal*), lately read a paper on a case of diabetes of three months' standing. The patient had previously been rigorously dieted. Under a bread-and-milk diet (three pints of the latter daily) and the administration of effervescing salines, with iron, the urine became perfectly free from sugar in a fortnight, and the patient speedily gained flesh and strength. Dr. Moore expressed himself strongly in favor of the free use of milk in such cases.

Effects of Bromide of Potassium.—Dr. Julius Levy, of Berlin, writes that if bromide of potassium in drachm-doses, three times daily, is continued for months, a series of boils will be apt to be produced. He says if some preparation of cinchona be given with the bromide, no boils or other evil sequelæ will arise.

Tumors of the Umbilicus Removed by Ligature.—Dr. Charles David Doig, Abinger, Ontario (*Canada Lancet*), reports two cases of morbid growth at the umbilical depression, which were successfully removed by a tape ligature. The children were aged six months and five years respectively.

J. Edwin Scowcroft, of Bolton (*British Med. Journal*), relates a similar case of umbilical excrescence in a healthy child three years old; it had suffered from this malady since it was fifteen months old. Nitrate of silver and perchloride of iron were first applied, but without avail. Upon the application of the ligature the growth came off on the fourth day.

Atropia in Opium-Poisoning.—Dr. Daniel S. Bucklin, Lansingburg, N. Y. (*N. Y. Med. Journal*), records two cases of opium-poisoning, successfully treated by atropia. He ordered Fleming's solution of atropia in ten minimum (20 drops) doses.

Inflammation of the Cornea.—In an interesting and practical paper on "Some Forms of Inflammation of the

Cornea," by Charles L. Bull, M.D., New York (*N. Y. Med. Journal*), the author says that in some of those cases which commence as iritis serosa, the eyes have a tendency to increased intra-ocular tension, and later on in the disease become softer than normal, and it is in just such cases that secondary glaucoma is apt to follow.

As regards treatment, atropine is indispensable. Mercurials make the matter worse when iritis serosa is the primary cause. Counter-irritation of the skin by blisters or setons should be used constantly. Puncture of the anterior chamber is indispensable in all serous inflammations. If synechiæ exist, an iridectomy must be performed.

Gonorrhœal Lymphatism.—Dr. H. Illowy, late Resident Physician Cincinnati Hospital (*Cin. Lancet and Observer*), alludes to the form of rheumatism, either attendant upon or an immediate sequence of blenorrhagia, which in 1781 Swedianer, and Hunter in 1782, called "gonorrhœal rheumatism." Even Hippocrates is thought by some to have referred to this disease in his aphorism, "Ennuchi non laborant podagra." Fourcault, Fournier, and Rollet had 115 cases; Brodie and Sordet, 11 cases. Twenty-three cases are reported in European journals, and 15 cases by Voelkert, in his monograph.

This form of rheumatism, he contends, is not the direct result of gonorrhœa; it acts only by vitiating the system, bringing about what, for want of a better term, might be named "lymphatism," and this, in its turn, being the direct exciting cause of the disease. Dr. Pidoux said the characteristics are more of the tumor albus variety than of the ordinary rheumatism.

Dr. Illowy adds the histories of six cases that have latterly been under his observation, which, in his opinion, are good illustrations of that condition denominated gonorrhœal "lymphatism."

Ten Cases of "Ulcus Corneæ Serpens."—Prof. E. Williams, M.D., Cincinnati, Ohio (*Cin. Lancet and Observer*), describes ten cases of this form of ulcerative keratitis, and the treatment by incision, which was first described and practised by Sämisch. He remarks, in closing, that this operation proposed by Sämisch far excels all other modes of treatment on record. The importance of the operation does not simply consist in the restoration of the diseased or injured organ to useful vision, but in warding off the glaucomatous process which is frequently set up in an eye with a clouded pupil. It must also be remembered that by preventing adhesion between the iris and capsule of the lens, and between the iris and cornea, etc., sympathetic ophthalmia is also avoided.

In the performance of the operation the best instrument for transfixing the base of the ulcer is, in most cases, a narrow Gräfe's cataract-knife. In some cases, however, the chemosis of the conjunctiva so flattens the cornea that a straight knife cannot be conveniently used. In such cases a narrow sickle-shaped knife is far better.

Bromide of Iron.—This remedy is advocated by Dr. N. H. Norris, of Beloit, Wis. (*North-Western Med. and Surg. Journal*), as nearly a specific in involuntary seminal emissions and spermatorrhœa. He has administered it three times daily, an hour before or after meals, in doses of three to five grains, rubbed up in a little syrup.

Prof. Namais (*Practitioner*) states that this remedy corrects defective formation of blood, quiets nervous excitation, and produces the combined effects of iron and the bromides. He regards bromide of iron as being in many instances a therapeutic agent of superior value in epilepsy even to the bromide of potassium.

Opium in Croup.—The use of opiates in the treatment of true croup is warmly commended by Dr. J. S. Seaton in the *American Practitioner*. Repeated doses of Dover's powder are given until the distressing symptoms are abated and an emetic (ipecac) is required.

Excision of the Knee for Disease.—According to John H. Parker, M.D., Surgeon to the Episcopal Hospital, Phila. (*Phila. Med. Times*), seven incisions of the knee have been performed within the past two years in the city of Philadelphia. They were all, like his own two cases, satisfactory so far as the local treatment and its effects were concerned. He regards this procedure as one deserving of further trial at the hands of American surgeons, although, heretofore, it has found less favor in this country than abroad.

Chorea Treated by Calabar Bean.—Dr. F. A. Ashford (*National Medical Journal*) reports a case of chorea in which he was induced to use calabar bean from its good effect in a case of tetanus. The patient was a girl fifteen years old. "Her speech was greatly impaired, locomotion impossible, acts of volition gave rise to irregular movements, and muscular activity was constant and unremitting." Twenty drops of the saturated tincture were ordered to be given until its therapeutic effects became evident. Beginning at 4 P.M., she received five doses, and was asleep and quiet at 10 P.M.; pulse very small. The next morning she talked much better, and the lower extremities were quite controllable. The tincture was then ordered at intervals of two hours. By 8 o'clock its effect was extreme. She could scarcely move a muscle, and her helpless placid state presented the relaxation from chloroform without affecting the intellect. The bean was discontinued, and milk-punch administered, after which she slept till morning. The next day her menses, which had been suppressed two weeks before, returned.

Influence of the Age of the Mother upon the Size of the Fœtus.—Dr. Wernich (*Beitrage zur Geburts und Gyn.*, 1, 3-16) undertakes to establish the amount of influence exerted by the age of the mother and the number of her pregnancies upon the weight and length of the fœtus, as shown by 1,899 births registered at the *Maternité* of Munich, added to the 4,449 cases collected by Hecker, making in all 6,348 observations. The conclusions confirm those of Hecker and Duncan, that: 1. The weight of the fœtus increases with that of the mother until she has reached the age of 33, the length of the fœtus continuing to increase until her 44th year. 2. Each infant shows an increase in both weight and length above that of the preceding birth. 3. Long intervals between labor are more favorable than short ones in this regard. 4. Menstrual regularity in the mother, and the delivery of the first child at the proper time, favors the chances of vigorous children subsequently.

Leucorrhœa in Children.—Dr. Guersant (*Med. News and Library*) advocates as a frequent wash to the vulva, in leucorrhœa, water and extract of lead, infusion of walnut leaves, or infusion of Provence roses; but when the discharge comes from the vagina he prefers to inject these fluids in the morning and evening carefully into that canal, using a syringe furnished with a delicate gum-elastic canula, well fastened and capable of being introduced through the opening of the hymen. These injections may be made by intelligent mothers, by placing the child on the edge of the bed and keeping the labia separated. The surgeon should show the mother at least once how these washes are to be used.

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THE COUNTY SOCIETY AND THE INJUNCTION CASE.

In a previous issue we presented to our readers a detailed account of the injunction against the Comitia Minora of the Medical Society of the County of New York, in the case of Ruppanner against Austin Flint *et al.* Since that time Dr. Ruppanner has taken the pains not only to publish all the affidavits and other legal documents bearing upon the case, but to make a special appeal to the Society on behalf of the course which he took in defying the legitimate authority of said body. This pamphlet was duly sent to every member, in order that a proper understanding of his position might be had before any definite action should be taken upon the affair by the Society at large. The letter introducing the documents was in keeping with the spirit which actuated the writer in the procurement of the injunction, and was in the highest degree presumptuous and impertinent. After stating that he had never avoided a fair and impartial investigation of the so-called "charges," neither had he set at defiance the rules and regulations of the Society, nor in any manner violated the code of medical ethics; and that he had resorted to the courts to prevent what he deemed preliminary injustice, to protect his own rights as well as those of every member of the Society, and to have a fair and impartial hearing upon testimony and facts, he sees fit to say that in spite of being compelled to do all this, he "intended no discourtesy to the Society or any of its members," and that he believes that every fair-minded and unprejudiced member of our honorable profession will, upon *calm* and *unbiassed* deliberation, say that he "acted right."

Our readers have been already informed of the facts upon which these assertions are founded. We would have hardly thought it worth while to present the last statements of the accused, were it not that the charge might be made that an "unbiassed deliberation" had not been invited.

But, strange as it may seem, the very letter written by the accused was used as the means of his condemnation, and with the published affidavits afforded the looked-for opportunity of bringing the affair in a proper manner before the Society, independent of any aid from the Comitia Minora. The attendance upon the meeting was unusually large, and, as the result proved, every member was prepared to mete out strict justice. The presentation of the case in detail was unnecessary, as it was evident that every member had read the documents and thoroughly understood the importance of a prompt dismissal. The original charge had nothing to do with the question. No one cared to know which of the two parties was right, and there was no particular sympathy for either. The personal quarrel was entirely lost sight of, the sole purpose being to vindicate the right of the Society to discipline its members in accordance with its own constitutional rights, to show to the profession at large that a member who insults a body of gentlemen, by enjoining them from making a strictly professional report, preventing them from discharging their duties as honorable men gets justice only by expulsion. The action of the Society in expelling Dr. Ruppanner on these grounds will receive the endorsement of the profession everywhere. The case was novel in reference to the injunction, and could only be properly disposed of by a suspension of the by-laws. By such action the Society places itself beyond the jurisdiction of any court of law, and establishes a principle which can be taken as a precedent by other bodies likewise afflicted by unruly and defiant offenders.

In the Record for November 15, Dr. Hammond replies to our criticism of his late work, and repeats his claim to having been the first to demonstrate the constringing influence of ergot on the blood-vessels by experiments on living animals. He further states, that if we can refer to any experiment on this subject prior to June 15, 1861, he will very willingly admit that his claim is unfounded.

In Dr. Brown-Séquard's work on *Paralysis of the Lower Extremities*, page 77, occurs the following passage:—"Experiments upon animals have shown to me, in the most positive manner, that these two remedies (belladonna and ergot of rye) are powerful excitants of unstriped muscular fibres in blood-vessels, in the uterus, in the bowels," etc. On page 78, the author says:—"Not only have I seen the diminution in the calibre of blood-vessels of the pia mater of the spinal cord taking place in dogs after they had taken large doses of belladonna or ergot of rye, etc." . . .

"Led by the knowledge of the above facts, we have employed belladonna and ergot of rye in cases of paraplegia due to a simple congestion or a chronic inflammation of the spinal cord and its meninges."

On page 79, Dr. Brown-Séquard distinctly claims to have been the discoverer of this action of ergot of rye, and to have pointed out the differential therapeutical indications suggested thereby:—"Whatever be the value of our experiments on animals as regards the mode of action of these remedies, it is now certain that they have really a great power in diminishing the amount of blood in the spinal cord and its membranes." . . . "We claim to have pointed out, as clearly as we could, in what cases of paraplegia strychnine, or belladonna, and ergot of rye are to be employed or avoided." "To indicate this distinction is the principal object of these lectures."

The work from which these extracts are made was published in Philadelphia in 1861; and on page 5, in a foot-note, the author states:—"The substance of these lectures, in a condensed form, was part of a course of lectures on various subjects, delivered in April and May, 1859, to classes of professors, practitioners, and medical students in the Universities of Edinburgh and Glasgow, and in Dublin."

Our amazement at the claim of Dr. Hammond, already very great, has been increased by his letter to this Journal, and by reading the passages in question. What he says on the subject is clear enough, but it is clearly wrong. As we understand the matter, if Dr. Hammond had declared himself the discoverer of vaccination, of etherization, of hydrate of chloral, of the circulation of the blood, or of the continent of America, he could not have made a claim more unfounded or unexpected, or one more easy to overthrow.

The governors of the Albany Hospital are beginning to find that the one-man power, which they have for some time past striven so hard to maintain, is not the best calculated to serve the interests of their institution. In order to support one of the surgeons who had "rendered great services" to the charity, they allowed themselves to be parties to all his petty malices, and in an indirect and underhand way to cause the removal of such as chose to object to the course of their admired benefactor. Finding that their course has not been sustained by the general public they are beginning to look about for expedients. The public have no interest in the quarrels, the likes or dislikes of any one individual, and are beginning to ask the question, why the best men of the profession are hindered from rendering their valuable services to the needy? That the governors have some desire to conciliate public opinion is manifest by the fact that three of the most distinguished members of the old staff have actually had appointments forced upon them. The hospital, notwithstanding this, still continues under its short-sighted management, and these gentlemen are forced, out of pure self-respect, to decline the honors thus thrust upon them. On general principles it would seem expedient, under the circumstances, to turn the tables, either by removing the one who has been "the head and front of the offending," or by conquering his dictatorial spirit, for under no other conditions should the gentlemen, whom the governors seem so desirous of appointing, return.

Reviews and Notices of Books.

Odd Hours of a Physician. By John Darby. Philadelphia: J. B. Lippincott & Co. 1871. 12mo, pp. 256.

It is with a feeling of no small satisfaction that we welcome a member of our own profession into the field of general literature. It is so rare nowadays for a medical man to write upon subjects that have an interest for outside thinkers, that this fact alone, independent of the merits of the volume itself, recommends the book to a place among the extraordinaries. Since the scholarly Dr. John Brown, of Edinburgh, gave his charming Spare Hours to the world, we have had none of the craft, however well they may have been qualified by cultured thought or classical diction, who has had the inclination, like the author of the present volume, to walk in the same paths. The work is the result of the amusement of a man who, although engaged in the laborious practice of his profession, has kept his eyes open, and has given us a delightful common-sense view of human nature and of things in general. In the discussion of his topics, not a few of which are quite abstruse, there is a freshness of thought and sincerity of purpose which begets in the mind of the reader a sympathy bordering on enthusiasm. The philosophy of every-day life is depicted by one who has had an ample experience, and whose battle with life has not resulted in the destruction of that spirit of charity, that capacity for the enjoyment of the beautiful, and that condition of mind which brings contentment to every condition of life. In fact the whole work, notwithstanding the diversity of the topics considered, has the end in view of teaching the unreasonable the true happiness of being contented with their respective lots. The essays, numbering in all twelve, treat of the following subjects: Success, Spending, Principles, Law, Correlation, The Philosopher's Store, To-day, Living Wise and Otherwise, Utopia, In the Country, and Addendum. We have read the book with much pleasure, and shall keep it on our library-table for a frequent reference and an amusement in our leisure hours. The author, who writes *incog.*, is believed to be a distinguished surgeon of Philadelphia, and who, we doubt not, may be tempted by the success which his little work is sure to meet to give us his true name, and add another claim to a reputation already so well deserved among his brethren.

Practical Therapeutics, considered chiefly with Reference to Articles of the Materia Medica. By Edward John Waring, M.D., F.L.S., Member of the Royal College of Physicians, London, etc. Second American, from the third London ed. Phila.: Lindsay & Blackiston. 1871. 8vo, pp. 765.

The author, in preparing this last edition of this work, conscious of the rapid strides which have been made in the science of therapeutics during the past few years, has deemed it advisable to virtually rewrite it. Very many of the articles now out of fashion have been abridged or expunged, while the new ones receive a proportionate amount of attention. As it now stands, it still maintains the enviable reputation of being the most practical and interesting work on the subject in this or any other language. Its whole aim seems

to be, in its description of the uses of the different articles of the materia medica, to reduce theory to practice; and all this is done without any lengthened discussions, and in a very interesting and straightforward manner. Aside from the description of the uses of the medicines under their respective heads, there is a carefully prepared and elaborate index to the diseases, with each of the different articles used in their treatment, properly paged.

The convenience of this is obvious when a practitioner in any difficult case is forced to look for some change in his prescription, or to refresh his mind concerning the means he may have at command for the treatment of any particular disease.

THE MANAGEMENT OF INFANCY, PHYSIOLOGICAL AND MORAL; intended chiefly for the use of parents. By ANDREW COMBE, M.D. Revised and edited by SIR JAMES CLARK, Bart., K.C.B., M.D., F.R.S., etc. First American, from the 10th London edition. New York, D. Appleton & Co. 1871. 12mo, pp. 297.

ABOUT twenty-five or thirty years ago, Dr. Andrew Combe, of Edinburgh, Scotland, presented, for the consideration of the general public and the profession of medicine as well, a treatise upon the above subject. The work, at the time, although coming from an acknowledged respectable source, did not receive that notice which its intrinsic merits entitled it to. One reason for this was, that the ideas advanced in regard to the subject in general were much in advance of the times. We can judge of the truth of the latter when we look at the same volume, very little altered, and fully up to the ideas of all the advanced thinkers of the present day. It is intended for the general public, its objects being to teach, in an attractive, logical, and truly scientific manner, the laws of living as pertain to the mother and child, in every imaginary relation in which they may be placed. A strong believer in hereditary influences, he relates some curious circumstances in support of the old-fashioned theory—a theory which to-day is gaining to its side some of the first minds of the profession. The chapter on the influence of the mother's mode of living during pregnancy upon the future child, has special reference to this point, and to the layman is filled with a great amount of interesting and useful material. The management of the infant is a subject concerning which our author may be considered to treat exhaustively. The best means to the end of maintaining the infant in good health, to wit: the care of the dress, the time for feeding, quantity and quality of the food, and last, but not least, the moral training, receive each in its turn due consideration.

One of the objects of the work has been, to enter a wedge, in the shape of a practical argument in favor of teaching physiology and hygiene to the rising generations, from which the future mothers of our race are to be selected. We, in common with the profession at large, are ready to endorse the movement, and are pleased to see this instructive volume again brought to light in the shape of a new and revised edition, with additions from the pen of the late Sir James Clark, who, considering the subject matter of the work, appropriately dedicated it to his royal patron, Her Majesty the Queen of England. We earnestly recommend every one directly or indirectly interested in the proper care of the little ones to give it a careful perusal, assuring them that the statements therein contained are based upon sound principles of physiology and the universally-accepted laws of hygiene. The student of medicine and the younger practitioner can consult its pages with a profit, and can find in it suggestions as to the management of mother and infant which are beneath the dignity of most of the purely scientific works on the subject to notice.

LETHEBY ON HUMAN FOOD. A collection and reprint of four Canton lectures, delivered in 1868, in London. By H. LETHEBY, M.B., M.A., etc., etc.

THIS book has recently made its appearance in this country.

Whatever may be said for or against it, we cannot say that it has not the virtue of being small. It is a very small octavo. We will preface the few remarks we may make upon it by assuring the profession that in some respects this is a remarkable book; in other respects it is an exceedingly common book; and in scarcely a single respect is it of the slightest utility.

A perusal of it will convince any one that it was intended, as the preface informs us, more for popular than for scientific use; and after perusing it, one will be struck with the prudence of the closing lines of that preface, to the effect that the author submits it "to the reader, not merely as a claim upon his indulgence, but as an excuse for many evident imperfections and shortcomings." It is devoted to the subject of human food; taking up first its varieties, its chemistry, and nutritive value; and then its comparative digestibility. Next it discourses on dietary regulations and cookery, and preserved food; and lastly it goes over the popular, oft-trodden, but dubious path of unwholesome food. With the repetition the author makes in this book, of old and new facts in animal chemistry, we have no fault to find; and will simply remark that it makes very dry reading for the masses, and that it is obvious to us that the learning these lectures contain will result in less advantage to the public digestion and assimilation than will Mark Twain's fancies relative to the discoverer of America, and to other subjects which attracted his attention while abroad, though the book contains about as many untruths and absurdities as do the said fancies of Mark. The book abounds in evidences of ignorance on the part of its author, of such an inexcusable character that it is incredible that he could have had any foundation for his preface statement that these lectures "have been printed *verbatim* in several English and American journals, and that American and French editions of them are in course of publication;" and we are surprised that its contents should have been received as respectable authority even in London, where the people excel in credulity any other people of the world, especially about things out of London. As an example of the peculiar cockney ignorance above alluded to we will direct attention to the following statement found in one of the paragraphs of the book relating to Indian corn, as an article of human food:—

"The young grain, called cob, is, however, more palatable, and forms, when boiled in milk, an American luxury which takes the place of green peas" (p. 19).

Out of whose dictionary these facts were obtained we are unable to say; certainly not out of Webster's. The American method of instructing this kind of philosopher would be to feed him cobs and milk till he learn the difference between cobs and corn. A million of cockneys, and perhaps more, would not appreciate the error and absurdity of this learning about corn, simply because they know nothing of it. The book contains numerous statements equally ridiculous as well as untrue, which most Americans as well as Englishmen are not qualified, by knowledge, to dispute. We will instance the following, which occurs under the heading of functions of nitrogenous food, as one of these errors of fact:—

"The miners of Chili, who work like horses, also feed like them, their common food consisting of bread, beans, and wasted grain" (p. 79).

The fact being, that beef, generally dried or jerked, constitutes a large item of the dietary of these Chilian miners. These, however, are trifling misrepresentations, resulting from an ignorance which we should perhaps pardon in a royal English officer of a health board. But what are we Americans to do with the following bit of geographical and other ignorance, found in this same book under the heading of poisoned flesh, resulting from the animal or bird eating certain articles of food:

"The pheasants in *Pennsylvania* and in *Philadelphia*, which feed during the winter and spring on the *buds* of the laurel, are frequently poisonous."

But this all pales before the ridiculous romance—which we all laugh at here, but which in its degree of misrepresentation is positively atrocious—indulged in when speaking of this subject still further along. After stating that his people are often injured by eating the prairie-bird imported from this country, a result, he assumes without justification, of the poisonous character of the food eaten by the bird, he goes on to say that "in certain districts of North America, especially on the Alleghany Mountains, the flesh of all the cattle is poisonous; and so also is the milk they yield, and the cheese which is made from it." This specimen of London medical innocence abroad will be recognized by American physicians as a romance upon the fact that, in rare instances, in some regions west of the Alleghanies, cattle suffer what is termed milk-sickness, during which the flesh, and, in the case of the milch-cow, the milk, is stated to be unwholesome, and that the condition is supposed to be the result of some article of food eaten by the animal. This kind of romance and historical misrepresentations do not constitute the most serious faults of the book in question. In its statements of some of the most scientific propositions it is carelessly discrepant; and its deductions from them, being without foundation in truth, are calculated to misguide the ignorant, and to do infinite harm.

For example, in speaking of the composition of cow's milk, in one part of the book, he gives the solid constituents in 101 parts, as in the first line of this table, and in another part as in the second line.

Casein	4.10	4.48
Sugar	5.20	4.77
Butter	3.90	3.13
Saline matter	80	60
Total	14.00	12.98

We admit that this difference amounts to nothing practically in its bearing upon the relations of a given quantity of milk to the nutrition of mankind, whether old or young; but when he proceeds to state that to reduce cow's milk with the above solid constituents to an equivalent of the milk of the human female, which he states contains the solid constituents as given in this table:—

Casein	1.52
Sugar	6.50
Butter	3.55
Saline matter	45

there must be 33 per cent. of water added, he makes a declaration which he cannot defend, either by theory or practical results, and which is in direct conflict with the plainest arithmetical facts, as well as common sense truth. If casein be the substance which is in dangerous excess in cow's milk, how is it to be reduced from 4.48 in one hundred parts to 1.52 in one hundred parts by adding one-third its quantity of water? According to this author's own table, there are about three times as many grains of casein in one hundred grains of cow's milk as in the same amount of woman's milk. Therefore, to make it the same per cent., three times as much fluid would be required, that is to say, to every pint of milk a quart of water must be added. As the per cent. of butter in the two milks is, within a small fraction, the same, watering it always deteriorates it, and renders the addition of both sugar and butter necessary to preserve its similarity to woman's milk. This our author does not allude to. His theories are, therefore, defective, and we know that well-observed practice contradicts, in the most positive manner, his whole idea of diluting cow's milk for infant food. Few of the teachings of the analytic chemist have exerted a more pernicious influence in the community, and few have contributed more to swell the infant mortality, than these deductions from the slight, very slight constituent variations between the milk from the human female, and that from the lower animals. We have often had occasion to express our conviction, and we have yet seen no reason to change our opinion, that the cow's milk sold in any large city of the world never is made better food for an infant by adding water to it.

As might be expected, these lectures devote some space to the discussion of the subject of the effect of eating the flesh of animals dying of disease, or killed while suffering from disease. And here again is seen the same want of accuracy and scientific truth which pervades the book.

While forced to quote Gamger, Simon, and others against the idea that such flesh produces disease or untoward results in those who eat it, and admitting that pleuro-pneumonic beef is not known to harm the people of England, he hastens to quote that charlatan Dr. Livingstone, to support the idea that whatever careful observation in England and Europe had established upon this subject, pleuro-pneumonic beef, when eaten in Southern Africa, invariably produces malignant pustule—a totally groundless fabrication, as we have abundant reason to believe. Upon this declaration of a visionary traveller he makes an elaborate statistical effort to support Livingstone's fiction by showing that since 1842, the modern date of a pleuro-pneumonic invasion of Holland and England, carbuncles, phlegmons, and boils have been gradually increasing, though he seems to overlook the fact, that while this increase has been gradual, years of exemption from this flesh cause of carbuncle have occurred. What kept the carbuncles going during these intervals of absence of cattle disease he does not inform us. After all this effort, however, he is unwilling to commit himself to a doctrine so notoriously undemonstrable as that, whether dead of bleeding, of a bullet, of fever, or of colic, the flesh of the animal will possess any other properties than that of a more or less nutrient material. He has had no experience which will enable him to say that disease is ever produced by eating pleuro-pneumonic beef. He, however, very justly remarks, that if it be a general truth that the presence of disease in the animal at the time it is butchered does not render its flesh noxious, it would save a large amount of valuable and costly food annually in London to have it generally known and believed. As a means of ascertaining whether such be the fact, he suggests the barbarous plan of assuming, first, that such flesh is poisonous, when eaten as usually prepared for human food; and then to punish the vendor of that poison by forcing him to eat of it. If he be poisoned, the punishment will be merited; but if, on the contrary, he be fattened, all the suspected

beef he does not eat will be lost, and the community will know just what it might know to-day, that such flesh is not noxious. No one is more willing than ourselves to award due merit to any book which manifests evidences of painstaking study and investigation, wherever written, but we fail to find any such evidence in this trashy, ignorant, untruthful, and to some degree dangerous, four lectures of a medical officer of health of the great city of London, whence we have a right to expect far better productions.

THE PHYSICIAN'S DOSE AND SYMPTOM BOOK; containing the doses and uses of all the principal articles in the Materia Medica and officinal preparations, etc., etc. By JOSEPH H. WYTHES, A.M., M.D., late Surg. U. S. A. 10th ed. Philadelphia: Lindsay & Blakiston. 1871. 16mo, pp. 277.

THE work has been compiled for the use of medical students, and as such will serve a good purpose. It contains a vast amount of information of a practical character, and is well suited as a mental refresher to the student preparing for examination.

It contains, aside from the Doses and Uses of Remedies, a Table of Weights and Measures, Rules to Proportion the Doses of Medicines, Common Abbreviations in writing prescriptions, Table of Poisons and Antidotes, Index of Disease and Treatment, Pharmaceutical Preparations, Table of Symptomatology, Outlines of General Pathology and Therapeutics.

THE FUNCTIONS AND DISORDERS OF THE REPRODUCTIVE ORGANS, IN CHILDHOOD, YOUTH, ADULT AGE, AND ADVANCED LIFE, considered in their Physiological, Social, and Moral Relations. By WILLIAM ACTON, M.R.C.S., etc. Third American from the Fifth London edition. Philadelphia: Lindsay & Blakiston. 1871. 8vo, pp. 348.

THE work of Mr. Acton has supplied a want, which the issue of five English editions, in a very short period of time, fully proves. He treats of a subject, heretofore exclusively in the hands of quacks, in a truly scientific manner, and it may safely be said that there is not a single condition of healthy or abnormal function of the sexual organism, from the cradle to the grave, which does not receive its due amount of attention. His division of the subject is admirable, and his advice is in strict accordance with the most advanced views concerning the proper and healthful performance of the sexual act.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Anniversary Meeting, November 27, 1871.

DR. A. JACOBI, PRESIDENT, in the Chair.

THE meeting convened at an early hour, the attendance being exceptionally large.

The minutes of the Anniversary Meeting of Oct. 2, 1871, were read and adopted.

THE PRESIDENT stated that it would be impossible to complete the reading of the Minutes of the Comitia Minora for the past year, restrained at the last meeting by injunction of the Supreme Court; inasmuch as the Court, at the hearing on the injunction-order, had decided that it "continue and remain in full force and effect until the final termination of this action;" *i.e.*, of Dr. Ruppaner against the Comitia Minora and Dr. Sayre.

DR. RUPPANER EXPELLED.

DR. ROOSA moved that the by-laws be suspended, and the motion prevailed, *nemine contradicente*.

DR. HENRY arose to offer a resolution concerning the offence which had been committed against the Society by Dr. Ruppaner.

THE PRESIDENT said that if that subject was to be discussed, he, as one of the enjoined parties, must leave the chair.

DR. ROOSA moved that if the chair were vacated by the President, it be occupied by Dr. Peaslee.

DR. CARROLL thought there was no necessity for referring to any matters covered by the injunction. Entirely apart from the old charges against him, the member in question had been guilty of a grave offence against the Society, in refusing to abide by its rules, and in obtaining a legal injunction against its regular procedure—an offence which certainly called for a vote of censure; and this action might be taken without the President's leaving the chair.

After some further discussion of Dr. Roosa's motion, it was put by the President, and carried, in the form that the meeting resolve itself into a Committee of the Whole, with Dr. Peaslee in the chair.

In Committee of the Whole—Dr. Peaslee, Chairman; Dr. Bradley, Secretary:

DR. HENRY, taking the floor, said that he had a resolution of censure to offer, and referred to a pamphlet, issued a few days before by Dr. Ruppaner, entitled, *Statement of the "Sayre-Ruppaner Case," and Opinion of the Supreme Court.* It consists of copies of the legal documents pertaining to the injunction-order, and of a prefatory letter, addressed "To the Members of the Medical Society of the County of New York." From this letter the speaker read several paragraphs, among them the following, which, together with statements in Dr. Ruppaner's affidavits, he characterized as deliberate and malicious falsehoods, in the highest degree insulting to the Society as well as to the officers it had elected:

"It is perhaps proper for me to say, that I have never avoided a fair and impartial investigation of the so-called charges of Dr. Sayre; neither have I set at 'defiance' the rules and regulations of the Medical Society; nor have I, in any manner, violated the code of medical ethics.

. . . . . .

"I have resorted to the courts to prevent what I deemed preliminary injustice; to protect my own rights, as well as those of every member of the Society; and to have a fair and impartial hearing upon testimony and facts.

"In what I have done I have intended no discourtesy to the Society or any of its members."

After an allusion to some of Dr. Ruppaner's antecedents, the speaker proceeded to comment at length upon his statements concerning the Society, and his course in defying its authority. He was about to read further from the pamphlet, when

DR. J. L. BROWN said that this pamphlet had doubtless been read by every one present, and that it seemed a waste of time to go on with the citations. After several calls for the resolution,

DR. HENRY moved that the committee recommend the adoption of the following:

Whereas, Dr. A. Ruppaner has refused, on frivolous pretexts, to meet charges preferred against him, to the Comitia Minora of this Society, by a member, in ac-

cordance with the rules and by-laws of the Society; and

Whereas, The said Dr. Ruppaner has, by false representations to a court of law, obtained an injunction against said Comitia Minora, thus impeding their regular action, and that of the Society, thereby reflecting injuriously upon the honor and impartiality of said Comitia and of the Society, and subjecting the Society to tedious, expensive, and unnecessary litigation; therefore, be it

Resolved, That, in the opinion of this Society, the said Dr. Ruppaner merits expulsion, and that he is hereby censured.

Dr. Finnell thought that the passage of any such resolution would only help the member to the notoriety he was seeking.

Dr. Jacobi said it was not for the Society to consider what the member desired or deprecated; it was for the Society to do its duty; and the fewer minutes it took for this, the better.

Dr. Roosa said the question was simply this: Shall we allow a member accused of an offence—the accusation being properly made to the Comitia Minora—to scout its authority to investigate the case and report upon it to the Society, and to deny competence of the Society to decide upon it? Shall we allow him to go before the courts, and procure an injunction upon our regular mode of procedure in matters purely professional, and having no legal color whatever? It is exactly as if a church-member, accused of heretical doctrines or unchristian practices, should deny the church's authority to question him, and appeal to the law to restrain its investigations, and vindicate his orthodoxy or his godliness. If such a flagrant violation of its rules were to be allowed to pass without censure, all discipline in the Society was at an end, and it was time for it to dissolve.

The motion was passed; and, after some discussion on parliamentary points, the Committee of the Whole rose and reported the above preamble and resolution for adoption by the Society. The report of the committee was received; when

Dr. Henry moved to amend by substituting a preamble and two resolutions, which he read, setting forth what was supposed to be the substance of the original charges against Dr. Ruppaner; stating that in the opinion of the Society they were sustained; and ending with expelling him.

The President ruled that he could entertain no such motion, covering the subject-matter concerning which the Comitia Minora had been enjoined.

Some discussion ensued on the question, whether the report of the Committee of the Whole had been simply received, or had been adopted as the expression of the Society.

Dr. Raphael moved that the subject lie on the table. Tellers were demanded, and the motion was lost.

On a motion to adopt the preamble and resolutions reported by the Committee,

Dr. Folsom remarked that he thought the dignity of the Society would not allow it to adopt that report without amendment. If the member "deserved expulsion," as there stated, was there any reason for lenieney in his case? Should not his expulsion be at once accomplished, as it might be under the existing suspension of the by-laws? He, therefore, moved to amend, by substituting for the resolution of censure, the resolution, "That Dr. Ruppaner be now expelled from the Society."

The amendment was adopted, with one voice in the negative; and the report, as amended, was adopted.

On motion of Dr. E. Eliot, the suspension of the by-laws was now terminated.

CHICAGO—AN ACKNOWLEDGMENT AND AN APPEAL.

The following letter to Dr. Hamilton, Chairman of the Executive Committee for the relief of Chicago physicians, was read by the Secretary, Dr. Purdy:

No. 384 Michigan Ave., Chicago,
Nov. 8th, 1871.

My dear Doctor—Your generous letter of the 4th instant reached me late last night. I have not yet had the opportunity to lay it before our Committee, but will take the liberty on my own behalf, for them, to accept your noble offer of continued aid to our suffering brethren. In the name of our common humanity I dare not throw any obstacle between your charity and their necessity.

You ask of me, in turn, a service which I am most happy to render, if thereby I could coin my words into gold to feed the hungry mouths and shelter the chilled limbs from our fearful winter's cold.

Let me give you a little sketch of our operations thus far.

In the first place, I must premise by saying that we considered your charity to us as a matter purely professional, with which the general public and the *secular* press had no concern; and, hence, we have kept our operations strictly within the cognizance of the profession. Are we not right? What think you?

Immediately upon the appointment and organization of our Committee, we published a card requesting all *regular physicians* in *good standing in the profession*, who had suffered loss by the fire, to present to the Secretary a written statement of their losses. These, having been subjected to the scrutiny of the Committee, were classified as follows:

First, all irregular, and *disreputable* regular, practitioners were at once rejected, and referred to the General Relief and Aid Society;

Secondly, those unknown to the Committee were required to furnish certificates of regularity and standing from reputable professional sources; and,

Thirdly, those well known were placed at once on the relief-list, and the money in hand was divided among them as follows: To the first class, *i.e.*, those having families, and who had lost both residences and offices (which here are generally separate establishments), was awarded the largest possible sum, $50; to the second, who had lost their offices only, was awarded $25 each; and to the third (single men without dependants), $10 each.

We thus were enabled out of about $400, all the money at our disposal, to supply the immediate necessities of three, five, and nine persons in each of the three respective classes. One of these, a gentleman of thirty years' practice, for twenty-eight years a professor, and for some time president of his college, with his fifty dollars rented and furnished a little room about ten feet square, in a wooden shanty, with a pine table, a small cooking stove, and two Windsor chairs, and has gone to work. His wife, one of the most thoroughly refined and elegant women in the West, a scion of one of your oldest New York families, sweeps and scrubs the office, and acts as her husband's chemical assistant from morning until night. Another recipient of fifty dollars was a man of sixty years of age, whose collection of five hundred oil paintings, gems of art collected during forty years, and library of four thousand rare old volumes, had for years been one of the hidden treasures of our city, known only to the privileged few.

Could you have seen the tears start from the eyes of these Nestors of the profession, not at their losses,—of these they speak with a smile and a shrug—but at the sympathy and the noble charity of their professional brothers, you would, I am sure, have been touched to the very heart. Another, whose reputation has extended even across the ocean, said to me when I handed him his check, "This is more than I can stand. My *losses* cannot shake me, but this breaks me down."

These men have solicited, and some have secured, appointments from the city to attend the poor quartered in the public barracks, at $50 per month salary, whose daily incomes were formerly as great.

On the 27th ult. our hearts were gladdened by the arrival of Dr. Hubbard's check for $2,000, which enabled us, upon the same basis of apportionment, to extend our list of beneficiaries to thirty-five. And again, by means of Dr. H.'s second check for a like amount, together with $900 received from St. Louis, and $1,000 from the Kings County Medical Society of Brooklyn, through its President, Dr. Burge, we have increased the number of beneficiaries to seventy-five, of whom seven are medical students.

The largest amount appropriated to any one individual, thus far, has been $135, and this sum only to men having families and without resources.

One gentleman, whose household furniture cost $6,000, is now, with his wife and three children, sleeping upon the floor of two small rooms, of which the rent was unpaid until your relief came to his aid. Another, with an insane wife and three children, was occupying one room without bedding, getting rations from the Relief Society, and clothed in second-hand garments. The grown up daughters of one venerable gentleman escaped with their night-dresses and water-proof cloaks alone. The comprehensiveness of the calamity can scarcely be appreciated by one not upon the spot. None of our physicians were rich. Some were in very comfortable circumstances, while the majority were poor, and many foreigners especially, men of high culture, very, very poor indeed.

Some, who had been sufficiently fortunate to secure homes of their own, were encumbered by mortgages, by means of which they will lose eventually their real estate. Even those who had been so prudent as to insure their property find their insurance worthless by reason of the failure of insurance companies. The strongest of the local companies express the hope to pay twenty-five per cent. when they can assess their stockholders—a vain hope when the stockholders themselves are ruined. Under ordinary circumstances, when misfortune overtakes a medical man he can fall back on his book-accounts for relief; but in this case many, very many of the sufferers lost even these; and even had they been saved, they would have been worthless, as the patients are all ruined; so that many of us, more fortunate, who were not "burned out" are dependent entirely upon the little that we can pick up in cash from day to day to enable us to live.

Our list of applicants for relief, up to to-day, numbers one hundred and fifteen, of whom, as already stated, seventy-five have received aid in amount varying from thirty to one hundred and thirty-five dollars. The remaining forty have thus far been dependent upon public charity. This list is being swelled rapidly by the addition thereto of medical students of the Rush Medical College which was in the "burned district." We have thus far placed the students upon the same basis as physicians, as most of them are poor, many utterly destitute by reason of their losses, and without the aid received from you would be compelled to abandon their studies. Some of them, too, are practitioners of some years' standing, with families, who have hitherto been too poor to attend lectures.

We would be glad to learn your opinion of our mode of administration of our Trust Fund.

In compliance with Dr. Hubbard's request in his last letter, I wrote to the Governors of Michigan and Wisconsin for information regarding their suffering physicians. I have to-day a letter from Gov. Fairchild, of Wisconsin, informing me that he has placed my letter in the hands of physicians who will at once furnish the desired information.

I fear my catalogue of sorrows will seem like a dreary reiteration. Unfortunately our sorrows are all that we can call our own.

Very truly,
WM. HAY, M.D.

DR. PURDY, as Secretary of the Relief Committee, stated that, at its last meeting, the members had agreed individually to contribute each a certain amount monthly, for the next four or six months; and it was desired that this plan might be adopted by the profession generally, and that the names of those willing to become monthly contributors, with the amounts of their subscriptions, be sent as early as practicable to Dr. S. T. Hubbard, Treasurer of the Committee, 27 West Ninth Street, New York.

THE PRESIDENT, in a brief but earnest appeal, trusted there was no member who would not spare at least the value of two or three visits each month to aid the suffering physicians of the West.

The reading of the minutes of this Adjourned Anniversary Meeting was, on motion of Dr. Ellsworth Eliot, postponed until the next meeting.

The Adjourned Anniversary Meeting now adjourned *sine die;* and the meeting became the regular

STATED MEETING.

The President announced that the Comitia Minora had, under the lately amended by-law, recommended the following persons for membership, subject to approval by the Society: Drs. William B. Wallace, Herman Althof, Ramon Amabile, Beverhout Thompson, John N. Merrill, Seligman Teller, Mary C. Putnam, J. E. M. Lordly, Adolph Kessler, P. E. Donlin, Edward S. Smith, and Charles M. Allin. The Society adopted the report, and admitted them to membership.

DR. RUSSELL asked leave to introduce a matter of new business, which was ruled to be not in order at this stage of proceedings.

Voted, that the by-law fixing the day of meeting be suspended, so that when the meeting adjourn it be to Monday, 4th December.

Adjourned.

After the adjournment DR. RUSSELL stated to the considerable number of physicians who remained that, as he expected within a few days to have the honor of appearing before the committee of gentlemen who have in consideration the proposed changes in our municipal government, and of offering some suggestions for improving the operations of the Bureau of Vital Statistics, he had desired to be fortified in one respect by the endorsement of the County Society, which so fully represented the profession of New York. During the present year he had made great endeavors to obtain from physicians a compliance with the existing law requiring returns of all births which they attended. He was happy to state that, owing to the general co-operation of the profession, some 21,000 births would have been registered for this year, against 14,000 for last. Even this figure, however, did not represent two-thirds

of the actual number; and although he would respectfully urge upon his professional brethren a strict adherence to the law, until some change for the better was effected, it was with the object of entirely relieving the profession from what was by many considered a most onerous and thankless responsibility that he proposed to ask for a change. The plan which he had in view looked to the division of the city into a number of registration-districts, with a resident Subregistrar in each, to whom parents should be obliged to report their children's births, receiving therefor a written acknowledgment. The Subregistrar would also visit, once a year, every family in his district for the same purpose, and would make his returns monthly to the Central Bureau. The expense of the whole system need not exceed $10,000 per annum.

Correspondence.

ABSCESS OF THE SEPTUM NARIUM.

To the Editor of the Medical Record.

Sir—Mrs. Geo. Guion, æt. 20, native of the United States, mother of one child, which is eight months old is a delicate-looking woman, tall and fair, has always been rather feeble in health, and especially so since the birth of her child. She sent for me May 11, 1871, on account of some obstruction of the nostrils, which had been troubling her since the 7th, four days previously, and had then increased to such an extent as to render breathing through the nose almost impossible.

It had been accompanied with slight pain, which for the last twenty-four hours had been slightly throbbing in character; there was increase of discharge from the nose of a thin, watery character, and one slight attack of epistaxis.

It was evening when I visited her. I found both nostrils completely blocked up by smooth, ovoid, mucous-looking swellings, resembling polypi in appearance. Upon attempting a more critical examination the patient nearly fainted, not from pain, but from nervous apprehension, and further interference was postponed till next morning.

Upon examining the case next morning, May 12th, by daylight, the swellings which had been mistaken for polypi were found not to be such, but projections of the mucous membrane of the septum narium. On the side toward the septum, they could not be circumscribed with a probe, but were found to be continuous with its mucous membrane, and pressure upon one swelling communicated an impulse to the other.

A puncture was made at the lower part of the swelling on the left side with the point of a lancet, when a quantity of dark sanious pus was discharged with considerable force, and both tumors almost entirely disappeared. A probe could now be passed from one to the other. Here then had been an abscess formed in the septum of the nose, between its mucous layers, and distending them on either side in such a way as to imitate very much in appearance polypi of the nostrils.

This affection, though not very severe or important, I take to be rather uncommon. I have never seen a similar case; it is not described in the ordinary text-books, but a very good account is given of it in Holmes' System of Surgery, vol. iii. pp. 200–201, where a chronic form of the disease is spoken of, to which the present case corresponds. I prescribed such remedies for the patient as were indicated by the condition of her general health, but nothing locally except washing with warm water.

May 13.—I found the opening stopped up by a clot of blood, and the abscess refilled; opened it again, and to prevent its closing snipped off a little bit of the wall.

May 14.—Patient discharged cured, there only remaining some slight thickening of the mucous membrane.

J. H. Pooley, M.D.

Yonkers, N. Y., Dec. 1871.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from November 19, 1871, to December 4, 1871, inclusive.

Ghiselin, Jas. T., Surgeon.—By S. O. 453, War Department, A. G. O., Nov. 23, 1871, to report to the Commanding General Department of the Columbia for temporary duty at Portland, Oregon.

McClellan, Ely, Assistant Surgeon.—By S. O. 246, Department of the South, Nov. 23, 1871, assigned to duty at Crab Orchard, Ky.

Gibson, Jos. R., Assistant Surgeon.—By S. O. 452, C. S. War Department, A. G. O., to report to the Commanding General Department of the South for assignment to duty.

Mackin, Jr., Chas., Assistant Surgeon.—By S. O. 450, C. S. War Department, A. G. O., relieved from duty in Department of the Platte, to proceed to Boston, Mass., and report thence to the Surgeon-General.

Koerper, E. A., Assistant Surgeon.—By S. O. 220, Department of Texas, Nov. 13, 1871, assigned to temporary duty at San Antonio, Tex.

De Witt, C., Assistant Surgeon.—By S. O. 76, Department of Arizona, Oct. 17, 1871, assigned to duty at Fort Yuma, Cal., relieving Assistant Surgeon Lauderdale, under orders for New York City.

Medical Items and News.

A Method of Applying Dry Heat and Cold, suggested by Dr. Roberts, of Manchester, consists in the arrangement of a continuous coil of thin rubber-tubing on a backing of canvas, to which it is to be cemented. One end of the tube can be connected with an elevated vessel containing water of the temperature desired, and the other end placed in a receiving vessel. The pad is to be applied to the surface the temperature of of which it is desirable to modify.—*Br. Med. Jour.*

Chloral-Hydrate, according to Liebig, is manufactured in Germany to the amount of half a ton each week, which quantity is principally consumed in Germany and England.

Dentists in the United Kingdom.—Mr. Fox states that the number of dentists in England is 2,000; in Ireland, 150; in Scotland, 25.

Preserved Meat from Australia is being introduced into Great Britain, at a cost of 4½d. to 6d. per pound, and seems to be rapidly overcoming the disfavor which it first encountered.

The Medical School of Strasburg has been permitted by the German Government to constitute themselves into a self-controlling body. No salaries will be given them by the Government, but the pupil's fees go

to the maintenance of the institution and the teachers. Nearly all the old names appear in the announcement of lectures for the winter.

Dr. Charles C. Lee has been appointed Assistant Surgeon to the New York State Woman's Hospital, *vice* Dr. Frederick D. Lente, resigned.

Prof. Leibermeister, of Zurich, succeeds the late Prof. Niemeyer in the chair of Clinical Medicine at Tübingen.

Doctor Lucy Sewell, of Boston, has been solicited by the State Board of Health of Massachusetts, to report upon the effects produced on the health of women by the use of the sewing-machine.

Dr. Don Pedro Mata has been appointed Civil Governor of the city of Madrid, and has at once inaugurated measures for the improvement of the sanitary condition of the city and its surroundings.

Execution of Medical Students in Havana.—On the 23d of last month, a number of the medical students of the University of Havana, Cuba, defaced the grave of Gonzalo Castañon, late editor of the *Voz de Cuba*, who was shot in a duel provoked by himself. The offence was dignified as a political one, and the students were arrested and committed to the jail. On the day following their arrest, a court-martial was forced by the mob to sentence eight of them to death by shooting, which to appease the said mob was at once carried out on the same day. Eleven were sentenced to six years of confinement and hard labor in the penitentiary; twenty-one were sentenced to four years' confinement in the penitentiary; and three to three months' imprisonment in the jail. The bodies of the eight who were shot were refused to their parents, and were, without ceremony or coffins, buried like dead animals in two graves. The names of those shot were, D. Alonso Alvarez de la Gamba, D. José Márcos Llera y Medina, D. Cárlos Augusto Latorre, D. Eladio Gonzalez Toledo, D. Pascual Rodriguez y Perez, D. Anacleto Bermudez, D. Angel Laborde, and D. Cárlos Verdugo.

It is true the students had no right to deface any grave: it was an evidence of want of common decency to say the least, and deserved punishment. The ends of justice would have been met by the confinement of the ringleaders, but when we learn that they were shot in cold blood at the instance of a mob, and with the countenance of the authorities, the whole affair assumes an aspect of pure barbarity, the atrocity of which would shame the veriest savage.

Surgeon William Maxwell Wood, who on attaining the age of sixty-two years has lately resigned the office of the Bureau of Medicine and Surgery of the Navy, deserves, at least, the tribute of a notice as he retires to private life. He has passed his whole life in the navy, filling every grade, and acting as Fleet Surgeon in the Pacific during the Mexican war; as Fleet Surgeon in the Chinese squadron during the English war with China, and as Fleet Surgeon of the Atlantic squadron during the rebellion. Combining skill in his profession with the highest tone of character and energy in organization, he has effected great improvements in the discipline and standing of the corps. It was largely owing to his personal exertions that the Staff Rank bill was passed by the last Congress. He retires from the highest post attainable in his profession, under a rule of the Department, in the prime of his physical and mental powers, with the respect and gratitude of his profession. The country owes to him, to a great degree, the acquisition of California, he having carried to our fleet in the Pacific, from the city of Mexico, the news of the Mexican war, thus enabling our fleet to anticipate the English in the seizure of that province.

Monstrosity.—Dr. Laning, of Syracuse, reports a curious case of monstrosity, the abnormal development being confined to the ears. One was three times the normal size, and covered with excrescences, the other was a simple muscular plug for the meatus.

Dr. J. Solis Cohen, of Philadelphia, is winning for himself laurels as a public scientific lecturer. Recently he gave a very interesting account of Faber's talking-machine, and was thus enabled to illustrate in a very satisfactory manner the mechanism of the human voice. It is just such lectures as these that can help the public to appreciate how much of pure science belongs to legitimate medicine.

Russian Physicians.—There are in Russia 10,799 physicians. Of this number 6,113 hold public appointments, and 4,686 confine themselves to private practice. This gives only about one doctor to 7,812 of the inhabitants, basing the calculation on the most recent returns of the population. In many districts in Russia there is no doctor within less than a day's journey.

An Imperial Student.—The Prince Imperial has recently joined King's College, London, as an occasional student. The classes which he attends are those in Mechanics and Physics, under Professor W. G. Adams. He takes his place in all respects as one of the ordinary students.

The Application of Forceps.—George Johnston, M.D., Master of the Rotunda Lying-in Hospital, in his report for the year 1870, states that in 1,087 cases of labor the forceps was resorted to 83 times.

A Lengthy Skeleton.—Captain Burton, the English explorer, is bringing home from Palmyra, besides a rare collection of skulls, a human skeleton eleven feet in length.

Resignation of Madrid Professors.—The Professors of the Medical College of San Carlos, in Madrid, have mostly resigned, in consequence of the steps which the Ministers have taken, as they represent, to suppress sinecures. A demonstration in favor of one of the Professors was made by 150 students at the office of the Minister of Fomento.

A Singular Case of Tattooing.—A remarkable instance of tattooing of the whole body is to be seen in the General Hospital in Vienna. The man, a Greek by birth, had been a pirate, and had carried on brigandage on the Continent. Seven years ago he and five companions were taken prisoners by one of the wild tribes of Asia. Three of them were put to death, but this man, with two others, was preserved alive, and literally tattooed over the entire body. The proceeding caused horrible pain; and his two companions died under treatment. His body is covered from head to foot with delineations of men, animals, and fabulous things. The coloring material used for the figures appears to be indigo, the ground, especially on the chest and abdomen, being vermilion; here and there, about a line's breadth of the normal color of the skin can be seen. The hands and the soles of the feet are colored red, but have no figures. On the face and neck are inscriptions and characters resembling Arabic. The skin has the general appearance, to the sight and touch, of bluish gray velvet. Professor Hebra, who showed him to his class, has had him photographed in various attitudes.

Intra-Uterine Medication.—Dr. Henry Miller, of Louisville, Ky. (*Am. Journ. Obstetrics*), in his "Retrospect of Uterine Pathology and Therapeutics in the United States," claims that he was the first (1855) in this country to practise intra-uterine medication.

Effect of Strikes on the Death-rate.—The privations endured by the working class, during the late "strike" in Newcastle, England, had the effect of raising the death-rate from 26 per 1,000 to 40.

The Surgeon-General.—Brig.-Gen. J. K. Barnes, Surgeon-General, reports that the available funds of the Medical Department for the past fiscal year were $1,899,169.74, while the disbursements were: For payment of claims and fulfilling contracts prior to July 1, 1870, $65,508.88; current expenses of the year, $267,477.08; or a total expenditure of $332,985.96, leaving a balance on hand of $1,566,183.78.

The number of persons who have availed themselves of the provision of Congress under acts of June 17 and 30, 1870, to receive artificial limbs in kind, or a stated commutation in money up to June 30, 1871, was 8,918. These received:

	In kind.	Commutation.
Arms	104	4,067
Legs	1,117	3,114
Feet	5	51
Apparatus for resection	22	538

The number of persons furnished with limbs under acts previous to June 17, 1870, was 7,887.

The health of the army has not been equal to that of the previous year. The total number of deaths reported was 519, or 17 per 1,000 of mean strength. The mortality rate is thus greater than that for the previous year, the chief increase occurring in the proportion of deaths from disease. The proportion of deaths from all causes to cases treated was one death to 122 cases. One thousand and ninety-one white soldiers are reported discharged on surgeon's certificate of disability, being at the rate of 37 per 1,000 of mean strength. The number of colored soldiers discharged on surgeon's certificate of disability was 71, or at the rate of 27 per 1,000 of mean strength.

There are now recorded in the Division of Surgical Records a total of 235,393 cases, of which 5,210 were recorded during the past year.

The Army Medical Museum continues to increase in the number and variety of specimens and its consequent usefulness. The number of specimens added during the year was 1,516, a present total of 15,018. The number of visitors during the year was 15,000.

Part first of the *Medical and Surgical History of the War* is near completion, and will be laid before Congress during its coming session. The Surgeon-General urges an appropriation by Congress to complete the remaining parts.

The number of vacancies in the medical service of the army has increased from forty-four to fifty-four. The number of military posts requiring medical attendance on the 1st of July, 1871, was 206, at many of which the number of troops was so large, or the nature of the duties so onerous as to require the constant services of the medical officers. The Surgeon-General therefore recommends that the restrictions as to promotions and appointments in the medical corps be removed, as it would, in any event, require several years under the prescribed modes of annual examination to restore it to the standard number allowed by existing laws. He thinks the stoppage of promotions and appointments has proved to be prejudicial to the interests of the service, both in a sanitary and economical view.

New York Physicians' Mutual Aid Association.—The fourth anniversary meeting of this prosperous association was held at the Mott Memorial Library, Friday evening, November 10th, 1871, for the transaction of business, election of officers, etc. The report of the Treasurer exhibited a sound condition of its finances, the permanent fund having been increased by the contribution of Mrs. Dr. T. M. Halstead, being the amount due her upon the death of her husband, the late Dr. T. M. Halstead. During the past year only two members died, viz.: Dr. S. J. Sawyer and Prof. Geo. T. Elliot.

The following officers were elected for the ensuing year: *President*, James Anderson, M.D.; *1st Vice-President*, W. W. Reese, M.D., Brooklyn; *2d Vice-President*, Joel Foster, M.D.; *Recording Secretary*, Joseph S. Monell, M.D.; *Assistant Secretary*, S. Ayers, M.D.; *Corresponding Secretary*, H. S. Smith, M.D., Brooklyn; *Treasurer*, E. H. Janes, M.D.; *Directors*, Drs. Geo. A. Peters, Erskine Mason, Ernest Krackowizer, Gurdon Buck, M. Herzog, R. J. O'Sullivan, C. L. Mitchell, of Brooklyn, W. N. Blakeman, and Alfred Underhill.

This chartered association is constantly increasing in numbers, and is in good working order. Its object is to afford instant relief to widows and children of deceased members; or, in absence of either wife or children, to parents, brothers, and sisters, previously dependent upon them. Also in cases of special need, the sick member may be relieved by drawing upon the interest of the permanent fund.

The Directors are very desirous of having every regular physician in this metropolitan district become a member of this Aid Association. In that case the donation to the family of a deceased member would amount to a very handsome sum. Any physician desirous of becoming a member can send his application to either of the officers.

Professor Virchow.—This renowned German pathologist, it is said, intends to leave Berlin and go to London. He has always been a democrat in politics, and has in consequence suffered a great deal of persecution on the part of the royal authorities.

Beer in England.—The consumption of beer in England has increased in the following ratio: In 1825 it was about one-third of a barrel per head a year; in 1850 it was more than half a barrel; and in 1870 more than four-fifths of a barrel.

A Medical Degree Conferred upon an American Woman.—The degree of Doctor of Medicine has been conferred upon Miss Dimock, an American lady, by the University of Zurich. She had completed her studies in the medical school attached to the University.

Death of a well-known Edinburgh Druggist.—Mr. William Flockhart, of the celebrated firm of Duncan, Flockhart & Co., Edinburgh, Scotland, died recently at the age of 63 years. Mr. Duncan, two days after Mr. Flockhart's death, entered the 92d year of his age.

The Action of Quinine.—According to Monteverdi, the action of quinine and its preparations is especially upon the grand sympathetic nervous system.

To Rid Rooms of Flies.—In a novel clinical lecture "On Flies as an Annoyance to Surgical Patients," by Addinell Hewson, M.D., Surg. to the Penn. Hospital (*Phila. Med. Times*), various expedients are noted to protect and rid rooms in dwellings and wards of hospitals from these pests. There are weeds or plants emitting an empyreumatic odor which answer well the

purpose. Of such to be found about the country he knows none more effectual than the wild chamomile, a species of anthemis, known also as cotula or mayweed. The odor of this plant is not at all disagreeable, and branches of the weed when in flower, or some of the dried flowers, scattered about a room, will soon rid it of all flies. Another means, perhaps quite as efficient and certainly more easily resorted to, is to throw some powdered black pepper on a hot shovel and carry it about the room.

Ovariotomy Successfully Performed in a Child 6 8/12 Years old.—Dr. J. Ewing Mears, Phila. (*Phila. Med. Times*), records a successful case of ovariotomy in a child six years and eight months old, which was performed by Dr. W. B. Barker, of Higginsport, Ohio, assisted by Drs. J. J. Bradford and T. S. Bradford, of Augusta, Ky. It is believed to be the earliest age at which the disease is known to have been developed.

Dr. Atlee informs Dr. Mears that in his experience, embracing two hundred and forty-four operations, the youngest age at which he has performed the operation is sixteen years.

Traumatic Tetanus cured with Hydrate of Chloral.—J. Suydam Knox, M.D., of Somerville, New Jersey (*Am. Jour. Med. Sciences*), relates the case of a boy æt. 14, with traumatic tetanus, which was cured by hydrate of chloral, in 30-grain doses, taken every four hours in syr. acaciæ. The chloral promptly controlled the spasms, and induced sleep. At the end of four days it was administered only night and morning.

The Hassler Expedition.—The Hassler Scientific Expedition, under the auspices of the United States Coast Survey, and under the immediate direction of Prof. Agassiz, is one in which every scientific man must feel interested. Its object is to investigate the bottom of the ocean in its deepest part, to trace the sources of the currents, and to compare the Atlantic with the Pacific in order to ascertain, among other things, whether the one is higher than the other, whether the temperature is the same, and what are the currents that come into conflict. In connection with this will be the study of the transparency of the ocean; the specific saltness of sea-water, its specific gravity, and its chemical constitution, and of the animals inhabiting the sea-bottom, and the fishes of the deep sea, which, it is thought, may give the means of ascertaining whether the great oceans in some past time communicated one with the other. Prof. Agassiz proposes to give, as has been his custom, especial attention to the fishes of the deep sea, and expects to learn much from their study, and the solution to many interesting problems. In order to preserve the specimens secured, something like $20,000 will be required, half of which has been raised in Boston. Dr. Thomas Hill, late President of Harvard University, in charge of the department of physics of the sea, will superintend the physical experiments concerning the sea; Dr. White, of Philadelphia, of the chemical department, will make analysis of the water and other material connected with the chemical study of the sea; Dr. A. Steindacher will have charge of the geology of the ocean, the study of the natural history of bottom-sea animals and the deep sea fishes. The expedition will be absent about ten months.

Sea-Sickness.—Dr. De Zouche (*Liverpool Medical and Surgical Reports*) attributes the continued retching in this affection to the very acid condition of the secretions of the stomach; he finds that if alkalies, combined with aromatics, are given, it will generally yield. Anæmia of the brain is the supposed cause of the giddiness.

St. Francis Hospital, Jersey City.—Owing to the large increase in the number of patients in this institution, it has lately been deemed expedient to reorganize the medical staff by increasing its number to eight. The following gentlemen will constitute the staff thus reorganized:—*Surgeons*, Drs. Varick, Prendergast, Reeve, and McGill: *Physicians*, Drs. Lutkins, Culver, Morris, and Mitchell. At the first meeting of the new staff, July 31st, their organization was perfected and officers were elected for the ensuing year, Dr. Prendergast being chosen President, and Dr. McGill, Secretary.

Concerning Anti-Vaccination.—"A rough remark in our last issue has brought down on our heads a storm of objurgations. We said that vaccination was decried by two or three scoundrels and a good many fools, whereupon we are asked whether we class Mr. Newman among the scoundrels, or the late Dr. Bedford among the fools; what we mean by publishing such falsehoods; why we are deluding the people; and all manner of amenities. The letters we could stand up against, but the deluge of tracts is too much; and so we give in, the more readily because the expression was martistic. We beg, therefore, to declare that people who denounce vaccination in order to sell nostrums are not scoundrels, but only persons who risk human lives for gain, and that people who denounce vaccination from philanthropic motives are not fools, but only persons devoid of the faculty of weighing evidence."—*Edinburgh Medical Journal*, from the *Spectator*.

Night-Blindness Among the French Prisoners at Lingen.—In a paper by Dr. Bumke, in the twenty-fifth volume of *Virchow's Archiv*, translated by Dr. B. Joy Jeffries, of Boston, Mass. (*Bost. Med. and Surg. Jour.*), an affection of the eye known as hemeralopia is described, which has shown itself in the barracks at Lingen. Intense light is the cause assigned by authorities for this condition of the retina, in which it does not respond to twilight, moonlight, or artificial illumination.

The Distillation of Absinthe.—M. Motet recently submitted to the Academy of Medicine a full account of this poisonous compound, and says that "*absinthe*," which simply means "wormwood," is made by the distillation of a number of plants—the tops of wormwood, flag-root, anise-seed, angelica-root, leaves of littany (*origanum dictamuus*), and sweet marjoram. All these are macerated and placed in alcohol of very high proof, and permitted to remain eight days, when the mixture is distilled, half an ounce of the essential oil of anise being added to each three gallons. The first care, after the distillation, is to see whether the liquor is of a good color, and whether it will whiten well; and should it be found lacking in these essential points, it is brought up to the proper standard with indigo, tincture of curcuma, hyssop, nettles, and sulphate of copper (the ordinary blue vitriol).

"Probably," he writes, "few persons, in mixing their *absinthe* (which, among professional drinkers, is considered a great art), have ever stopped to consider the cause of the whitening or clouding, or ever thought that the better the liquor mixes the more powerfully poisonous it is. The white deposit which, in precipitating, renders it turbid, comes from the essential oils, which are held in solution by alcohol, but which are insoluble in water or weak spirits."

Nothing, says Dr. Motet, can arrest the progress of the brain-disease produced by the use of this poison. Sometimes the symptoms will be more favorable for a longer or shorter period, but the respite must not be

considered as a sign of approaching cure; and, a little sooner or a little later, death stalks in, in the midst of epileptic attacks, at a time when there is scarcely any human intelligence remaining—when the animal alone exists, and in a state of degradation of which no description can convey an adequate idea.

So deleterious have been the effects of this liquor that the late French government prohibited its use in the army and navy, even to the officers.

Loose Bodies in Joints.—James Paget, F.R.S. (*St. Bartholomew's Hospital Reports*), in the first paper "On the Production of some of the Loose Bodies in Joints," confirms the view advanced some fifteen years ago by the late Mr. Teale, of Leeds, that in some cases the so-called loose cartilages met with in joints are actual fragments of articular cartilage which have been separated by a slow process of exfoliation following an injury.

Hypodermic Morphia in a General Hospital.—J. Pennock Sleightholme, L.R.C.P., London (*The Practitioner*), during the years 1869 and 1870, while house physician to the Manchester Royal Infirmary, gave at least two thousand injections of morphia to patients suffering from various diseases. With one exception, he never saw any immediate ill effects follow the use of hypodermic introduction of morphia, and only in one case any evil result from its prolonged use.

In delirium tremens he has frequently given hypodermic morphia in doses varying from gr. ¼ to ⅓, and, as a rule, he has been disappointed with the effect of the injection. He is inclined to think that chloral, in doses of from 30 to 40 grains, is a much more certain remedy in delirium tremens than either morphia or bromide of potassium. In most cases of acute rheumatism, the injection of gr. ¼ of morphia at bedtime has appeared to him of great advantage, rarely failing to be followed by sleep. In this disease, he thinks that in hospital practice it is the best and most convenient mode of giving an anodyne at bedtime. In cases of valvular disease of the heart, gr. ⅛ of morphia was frequently given hypodermically at bedtime. Its effect was almost invariably beneficial, and it rarely failed to relieve the insomnia which forms so distressing an accompaniment of these affections.

European Statistics.—In the foundling hospital at Lyons and Parthenay, where the children are principally suckled, there is respective mortality of 33 and 35 per cent. In Paris, Rheims, and Aix, artificial feeding is mainly resorted to, and there is a death-rate of 50, 63, and 80 per cent.

According to a recent German author, 34 per cent. of the population of Europe is below fifteen years of age, and only 48 per cent. between the ages of twenty and sixty, or the period of activity, *i. e.*, one-half the population are consumers only.

New Publications.

Books Received.

Neuralgia, and the Diseases that Resemble It. By Francis E. Anstie, M.D., London, Fellow of the Royal College of Physicians; Honorary Fellow of King's College, London, etc. London and New York: Macmillan & Co. 1871.

The Action of Natural Selection on Man. I. Development of Human Races under the Law of Selection; II. Limits of Natural Selection as applied to Man. New Haven, Conn. 1871.

Transactions of the New York Academy of Medicine. New Series. Vol. i., part i.; vol. iii., part xi.

Half-Hours with Modern Scientists,—Huxley, Barker, Stirling, Cope, Tyndall. New Haven, Conn. 1871.

Transactions of the American Medical Association. Vol. xxii. Philadelphia. 1871.

Serving our Generation, and God's Guidance in Youth. Two Sermons, by President Woolsey. New Haven, Conn.: C. C. Chatfield & Co. 1871.

Modern Therapeutics: A Compendium of Recent Formulæ and Specific Therapeutical Directions. By Geo. H. Napheys, A. M., M.D. 3d Ed. Philadelphia: S. W. Butler. 1871.

Æsthetics; or, The Science of Beauty. By John Bascom, Prof. in Williams' College. New York and Chicago: Woolworth, Ainsworth & Co. 1871.

A Treatise on English Punctuation. Designed for Letter-Writers, Authors, Printers, etc. By John Wilson. 20th Ed. New York and Chicago: Woolworth, Ainsworth & Co. 1871.

War Department, Surgeon-General's Office, Washington, Aug. 17. 1871. Circular No. 3. Report of Surgical Cases in the Army.

A Treatise on Human Physiology. Designed for the Use of Students and Practitioners of Medicine. By John C. Dalton, M.D., Prof. of Physiology and Hygiene in the College of Physicians and Surgeons, New York, etc. 5th Ed. Philadelphia: H. C. Lea. 1871.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M.D., London, Member of the Royal College of Physicians, Lecturer on Pathology and Morbid Anatomy, etc. Philadelphia: Henry C. Lea. 1871.

Medical Thermometry, and Human Temperature. By C. A. Wunderlich, Prof. of Clinic at the University of Leipzig, etc., and Edward Seguin, M.D. New York: William Wood & Co. 1871.

A Hand-Book of Therapeutics. By Sidney Ringer, M.D., Prof. of Therapeutics in University College, Physician to University College Hospital. 2d Ed. New York: William Wood & Co. 1871.

A Practical Treatise on Bright's Diseases of the Kidneys. By T. Grainger Stewart, M.D., F.R.S.E., Fellow of the Royal College of Physicians, Physician to the Royal Infirmary, Lecturer on Clinical Medicine, etc. 2d Ed. New York: William Wood & Co. 1871.

A Compendious Grammar of the Greek Language. By Alpheus Crosby, Prof. Emeritus of the Greek Language and Literature in Dartmouth College. Chicago: Woolworth, Ainsworth & Co. 1871.

The Physician's Daily Pocket Record: Comprising a Visiting List, etc. By S. W. Butler, M.D. Philadelphia, 1871.

War Department, Surgeon-General's Office. Report to the Surgeon-General of the United States Army on an improved method of Photographing Histological Preparations by Sunlight. By Assistant Surgeon J. J. Woodward, U.S.A. Washington, D. C. 1871.

Original Communications.

THE OPERATION FOR PROLAPSE OF THE VAGINA AND UTERUS, WITH DESCRIPTION OF A NEW INSTRUMENT.

A PAPER READ BEFORE THE N. Y. MED. JOURNAL ASSOCIATION.

By E. NOEGGERATH, M.D.,

NEW YORK.

In a discussion following the reading of Dr. Emmet's paper on "Prolapsus Uteri: its Chief Causes and Treatment," at a meeting of this Association, I stated my views regarding prolapsus,—that there existed two great varieties of this affection, namely, primary prolapse of the uterus, and secondary prolapse caused by or accompanied with imperfect involution and prolapse of part or the whole of the vagina. This division was made not only from a pathological, but principally from a therapeutical point of view.

The first kind comprises several varieties, among which I will name hypertrophy proper or complicated with other alterations of tissue, and hypertrophic elongation of the supra-vaginal part of the cervix. The latter condition has been called by Virchow prolapse without locomotion of the fundus. You will have noticed from the remarks during the discussion that the question is not yet decided whether descensus of the neck is the primary or the secondary affection. The first variety of primary prolapse is cured by amputation of the cervix, not so the latter. And I will here remark that most surgeons who have published a description of their operations are evidently unacquainted with the proceeding originally recommended and executed by Huguier. And this is the reason why it is generally a failure when performed. Instead of dissecting off part of the connection of the bladder from the uterine neck, and removing a considerable piece of the supra-vaginal portion of the uterus, surgeons, as a general rule, content themselves with simple amputation of the cervix. And to complete Huguier's operation in the manner he proposed at first, it would be necessary to pass circular sutures through the tissue of the anterior or the posterior wall of the vagina, if either be prolapsed, in order to produce a slough and a shortening of the vaginal cavity.

Let us now direct our attention to that kind of prolapse in which dislocation of the vagina is the most prominent feature. I will only give a rapid sketch of the historical development of the operations for its relief, and then proceed to exhibit a new instrument for its treatment.

We must look up to Professor Mende as the first author who proposed, in 1834, to close up the greater part of the outlet of the vagina near the site of hymen as a radical cure for prolapsus uteri. He called his proceeding hymenorrhaphia.

At about the same time Dr. Fricke, of Hamburg, performed *his* operation (episiorrhaphia), which consisted in removing the posterior margin of the vulva, not including any part of the *vaginal* mucous membrane.

The plan next in order was that of Geddings, who removed a strip of vaginal mucous membrane as well as the margin of the vulva; he moreover secured the coaptation of the entire denuded surfaces by quilled suture. Mr. Baker Brown removed the mucous membrane only, having recourse also to quilled sutures.

Dr. Henry Savage's plan includes in the resection all the redundant vagina at its ano-vulvar margin in the first place; and in the second, the removal of a triangular portion of vaginal mucous membrane, the middle angle extending to some distance upwards along the posterior wall of the vagina, securing with quilled sutures in the usual way. He claims it to be the only plan which brings together effectively again at the perinæum the two ischio-perineal ligaments. It also shortens the elongated sacro-pubic line, contracts the perinæum to something approaching its natural dimensions, and leaves ample vaginal aperture, although it causes the posterior segment of the vagina to approach the pubis, so as to offer an effectual obstacle to the prolapse before it can make the final turn under the pubic arch.

Dr. Kuchler, of Darmstadt, whose proceeding is very much like that of Savage, added a second intra-vaginal suture, which secured the edges of the wound through the mucous membrane, in the manner adopted generally in the operation of a ruptured perinæum. Dr. Breslau, instead of *removing* part of the labia majora, dissects their inner surface from the outer layer and leaves them in contact at the outer edge; and in uniting the raw surfaces, thus thickens considerably the new perinæum.

This first class of operations has now been generally abandoned with the exception of those cases where a ruptured perinæum is complicating or causing uterine prolapse. Different from this is the second method, called colpo, (—,) or elytrorrhaphia, as first practised by Marshall Hall. He removed a long elliptic piece from the vaginal mucous membrane, and united the edges by suture. Ireland removed flaps from the sides of the vagina one and a half inch wide, extending from the cervix to the vulva. Leloutre added a flap from the *posterior* wall, and cauterized afterwards. Velpeau took the third piece from the anterior wall. Jobert de Lamballe cauterized frequently, and united the edges of the raw surfaces, thus produced, by sutures.

This carries us to the methods employed by surgeons of the present day, and above all to the proceedings of Drs. Sims and Emmet. The former, with all the originality peculiar to him, struck at once upon the most rational method of re-establishing the natural relations of the vagina; while Dr. Emmet has most successfully not only simplified the operation, but obviated the only objection to Dr. Sims's plan; namely, the formation of a pouch at the upper end of the cicatrix, in which the neck of the womb was occasionally caught and strangulated. The operations just mentioned are sufficiently known to you in all their details of execution to need any further comment, and I will here only repeat what I have stated on other occasions, that Dr. Emmet's operation is more successful than any that has ever been attempted before.

Prolapse of the vagina, usually preceding prolapse of the uterus, is caused in most instances by an elongation and hypertrophy of its several tissues, in such a manner that the space naturally allotted to it is no longer large enough to hold it in place. A very common and physiological increase in length and thickness of the vagina always takes place during gestation; its elements multiply and increase in size in a similar manner as it occurs in the uterus itself.

This fact becomes evident at once by dissecting and comparing the vagina of a virgin with that of a woman immediately after confinement, and by the fact that its roof can be lifted up to the promontory of the sacrum in cases even where the pelvis is only slightly contracted, a feature which we try in vain to perform on the non-pregnant woman. This elongation in an upward direction, however, is not a *stretching* of the canal. We remark occasionally that notwithstanding the development of its diameter towards the upper pelvis, part of its lower section protrudes between the labia minora.

This general hypertrophy causes an extensive folding up of the vagina, in such a manner that the lower folds protrude occasionally outside of the labia majora, while the rest of the organ is not displaced. This protrusion of the lower section of the vagina is of course increased by the co-existence of a low position of the uterus with a large pelvis and with a ruptured perinæum.

Immediately after delivery the involution of the uterus, as well as that of the vagina, begins to take place. This process now is at times impeded either by external accidental circumstances or by a process connected with the physiological functions of the parts involved. All the causes of subinvolution of the uterus are not explained, nor do we know why, under certain conditions, the vagina retains the length and thickness which it acquired during the state of gestation. But such is the fact; and under these circumstances we find that the folds which had made their appearance at the vulva before delivery are pushed out more and more, as the uterus descends in process of involution, the space for the vaginal canal becoming gradually restricted. This part, exposed to all sorts of mechanical insults, and in a position favoring passive congestion, increases in size and grows outside. It further begins to drag on the cervix uteri, which follows the downward impulse either alone (hypertrophic elongation) or it carries along the entire uterus (complete and true uterine prolapse).

From a very careful analysis of 300 cases of so-called prolapsus, compiled by Dr. Mayer, Jr., of Berlin, we find that the vagina formed part of it in 290 cases, the remaining 10 being either hypertrophy or hypertrophic elongation of the uterine neck.

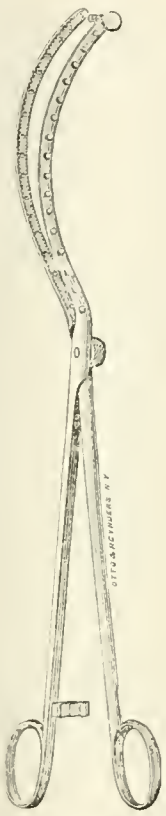
Among the former the anterior wall was prolapsed 283 times, and in only five instances the neck was not displaced.

Prolapse of both the anterior and posterior walls took place 203 times, while prolapse of the uterus with that of the anterior wall alone occurred 75 times. These statistics, which will probably not be altered considerably by enlarging their number, go to show that prolapse of the anterior as well as the posterior wall of the vagina play a considerable part in the development of uterine dislocation. And that is the reason why surgeons operating on these sections of the vagina have been, as a rule, more successful than those which attacked other portions of the external genital apparatus.

The reason, however, why so many failed in accomplishing their object must be sought in the fact that surgeons have generally not taken into consideration the important point, that there exists not only dislocation, but, to an eminent degree, excessive amount of tissue wherever prolapse has taken place. The first who removed out of the way this hypertrophied mass by a sort of true operative instinct, was Dr. Sims, followed by Dr. Emmet, and this is one reason why their operations have usually been successful.

The only objection I have against their mode of proceeding is this: it requires a protracted operation, and can only be performed by those few men who are in the true sense of the word surgeon-gynæcologists.

Now it is my opinion that a specialist has two duties to perform: first to develop his respective branch of both science and art by taking it out of the hands of the general practitioner, to bring it by undivided attention to as high a degree of perfection as his gifts permit him to do, and then to hand back the practical results in such a shape that the medical profession at large may scatter the fruits of his researches among mankind. The plan which I propose as a substitute has the great advantage of simplicity, requiring only a short time and only a very small amount of surgical skill for its performance. It is based on the views exposed in this paper. I simply propose to remove all of the prolapsed anterior or posterior wall by scissors, and unite the raw surfaces by sutures. To do this safely I have constructed an instrument which I have found to answer the purpose thoroughly. The instrument itself is not a new invention in all its features, but only a modification of Ricord's clamp for the operation of phimosis adapted to the shape and size of the prolapsed vagina.



The first time I performed the operation was on May 10th of this year, and the patient an inmate of the German Hospital, named Joanet Peusens, a stout, large woman, 43 years of age. She had given birth to a child six years ago, and been a sufferer ever since. The bearing down and dragging pains in the pelvis interfered at last so much with her occupation as cook, that she declared herself willing to submit to any kind of treatment which promised relief. Upon examination the uterus was found retroverted, and the neck near the vulvar orifice. Protruding from this I found a large portion of the anterior wall of the vagina considerably hardened and thickened. She was placed on the left side, the duck-bill speculum introduced, and the operation performed, which comprised three different acts, namely, 1st, The application of seven silver wires; 2d, The clipping off of the prolapsed portion; and, 3d, The twisting of the wires.

Before adapting the instrument, I marked the site of the sphincter of the bladder by a pin passed through the mucous membrane, and seized all that part of the vagina located between this point and the uterine neck. After the prolapsed portion had been cut away, there was considerable oozing of blood, which could, however, be controlled easily by a firm compression of the clamp, effected by the tightening of a screw at the farther end of the instrument. A small artery which bled considerably, just at the angle of the cut where it joins the neck of the womb, was secured by a ligature.

The patient was kept in bed for a fortnight, the sutures having been removed on the sixth day. Twenty-two days after this operation she was subjected to a careful examination, when it was found that there existed no longer prolapse, the womb being considerably higher up in the pelvis, and most of the anterior wall of the vagina in its natural relations. I remarked, however, that the urethro-vaginal septum was much thicker than it ought to be, with a tendency to show outside. I therefore removed this small section in the same manner as related above, after having applied four sutures. A fortnight afterwards the parts were found to be in a very satisfactory condition. The patient had, however, begun to show signs of disease of the stomach soon after the first operation, which were at first relieved, but at last assumed again such a severe character that I was no longer in doubt with regard to the development of organic disease of this organ, and she died, in the latter part of June, from a rapidly developed cancer of the stomach and intestines.

The second case was that of Mrs. Mary Forbes, aged

47 years, a native of Scotland. She was brought to my office for consultation by Dr. Griswold, when I found that there existed a ruptured perinæum, complete prolapse, with hypertrophy of the anterior wall of the vagina, which had carried down a thickened and indurated neck to near the external orifice. Here was a condition of things which demanded three different operations, namely, removal of the neck, perinæorrhaphia, and an operation on the anterior wall of the vagina. I decided to perform the latter, in order to see how the operation would work under these unfavorable circumstances. It was performed, with the assistance of Dr. Griswold and Dr. Mackenzie, on the 19th of May. During the progress of my first operation I expected to cut away part of the bladder, because we are constantly taught that the substance of that portion of the vagina which is prolapsed consists of the enlarged base of the bladder, and great was my astonishment upon finding that no trace of the latter could be detected in the removed portion. On this occasion I attempted to test this question thoroughly, fearing no ill effects from the removal of a piece of the bladder, since the sutures for the closure of this vesico-vaginal fistula are already in place before the cut is being made. I therefore pulled out with a Museaux's forceps as much as I could get between and in front of the clamp—a piece two-and-a half inches in length and nearly two inches wide. After its removal I was astonished to find that I had not opened the bladder, but only cut away a thin section of its outer coat, as I found afterwards by the aid of the microscope. Here again a small artery near the uterine neck began to bleed, and was readily secured.

During the next few days following the operation the patient had vesical tenesmus, and the urine had to be removed a few times by the catheter. The irritation, probably the result of a partial cystitis, yielded, however, very soon, and the patient made a prompt recovery.

On the 28th of September it was also found necessary to remove the thickened urethro-vaginal septum, which was done in the manner described above.

I examined Mrs. Forbes again on the first of this month. The patient expressed her satisfaction with and gratitude for the results of the operation. She is now able to perform her duties about the house without inconvenience, which she had not been able to do for the last eight years. There exists yet the ruptured perinæum; the neck is considerably enlarged, but no longer near the outlet. No prolapse of the vagina can be perceived; the only difference from a natural configuration of the vagina which can be detected is found in the fact that its anterior section is even now convex instead of straight or slightly concave. The centre of the cicatrix can be felt to the distance of about one inch as a thick solid scar.

I will here state that the remark of Dr. Emmet, that one cause of the failures of operations performed with a view to shorten the lateral diameter of the vagina, was owing to the fact that sutures would not stand the stretch necessary to produce sufficient tension on the walls of the vagina, but tear out, is perfectly true. In this instance the central sutures gave way in a few days, but the wound healed by granulation, and the cicatrix is now harder and firmer than it would have been if the edges had become united by first intention. This would certainly prove a great inconvenience if the cut should open the bladder. But from my, though limited, experience it would seem impossible to cut into the bladder when performing resection of the vagina. Should this accident ever happen, I would make incisions laterally into the vaginal tissue to relieve the tension.

While preparing this paper and reading up the literature of the subject, I found that Dr. Sims had once performed a similar operation. Even his first attempt to relieve prolapse consisted in cutting away the hypertrophied anterior wall of the vagina. He was equally surprised to find the bladder intact. His patient was entirely cured. From what I read between the lines I am inclined to believe that the hemorrhage in this case, or the dread of profuse bleeding in future operations, had deterred him from attempting it again. I learn from Dr. Thomas that he assisted in a similar attempt by another surgeon, and in this instance, although the sphere of the operation did not reach by far what is achieved by my procedure, was so fearful that no second operation has been attempted. If I am well informed, Dr. Nott has clipped off portions of the vagina by his écraseur, a proceeding which could only be applied to the removal of small sections. With the instrument before you the operation is complete and perfectly safe, and so simple that every physician who has ever handled a needle and a pair of scissors can perform it with the greatest ease.

As to its results I will say nothing as yet. The two cases on which I have operated have been satisfactory as far as they go, and it stands to reason that a part which is cut away can no longer prolapse out of the vagina.

CASE OF PARTIAL TEMPORARY BLINDNESS.

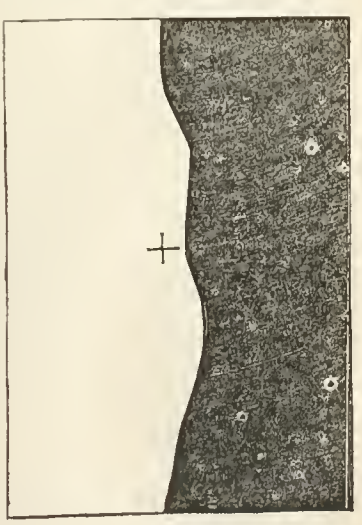
By RICHARD H. DERBY, M.D.,

OPHTHALMIC SURGEON TO THE DEMILT AND NEW YORK DISPENSARIES; LATE ASSISTANT OF PROF. VON GRAEFE, IN BERLIN.

Mrs. D., aged about 30, consulted me on the morning of the 25th of October, on account of a sudden defect of vision. At breakfast she had felt perfectly well, and noticed nothing abnormal about her eyes. At 11 o'clock she attempted to sew, but on trying to thread the needle she found that she saw its point but not the head. All objects in the room appeared to have lost their right halves. I saw the patient a few minutes after the attack, and found the following condition:—

Oc. utr. Emmetropia. Right eye, vision 1; left eye, vision $\frac{1}{2}$; accommodation normal; M 10 inches; slight dynamical divergence, about 8°. With the ophthalmoscope the fundus perfectly normal.

An examination of the visual fields revealed a nearly



symmetrical defect in each. The fields of vision were both limited by a line running nearly vertically, and

close to the line of equal division. To the right of this line, on both eyes, the field failed. A visiting card was held at a distance of ten inches before each eye successively, and the patient directed to look fixedly at a small cross thereon. The card was then seen as given in the diagram.

This affection of the vision lasted about twenty minutes, and was then followed by severe headache, dizziness, and nausea; the latter symptoms lasting until late in the afternoon. On the following day there was no trace of limitation of the visual fields. The patient told me that she had repeatedly had such attacks as this before, and that they invariably assumed the same form; that as soon as she noticed this affection of her eyes she was prepared for a severe sick-headache. From Dr. Draper, her attending physician, and through whose kindness I was allowed to see the case, I learned that she had at times had distinct epileptiform attacks.

Förster* describes an affection of his own eyes, under the name Amaurosis partialis fugax, which was evidently identical with the present case. The condition lasts, he says, usually about twenty minutes and then disappears, leaving no trace behind. He says further, that before the physician can reach the patient the trouble has entirely passed away, and that all we know of this form of amaurosis has been gained from scientific men, who have had an opportunity to observe it upon themselves. In the literature such cases have been reported by Wollaston, Brewster, Airy, Listing, Ruete, and Czermak.

In Förster's case he noticed, while reading, on each eye a small central scotoma. In a few minutes the defect had changed its position. Then it gradually increased in extent, and its edges began to scintillate (flimmern). In less than half an hour the phenomenon had entirely disappeared. Nausea, general sense of malaise, and severe headache followed this disturbance of vision, as in our own case.

It is probable that this affection had a cerebral origin, in the case we have considered, and did not proceed from the optic nerve. The ophthalmoscope, as is usual in these cases, revealed absolutely no change in the fundus.

* Sitzungsbericht der ophthalmologischen Gesellschaft im Jahre 1869. Zehender, p. 422.

A CLINICAL LECTURE.

By Prof. JAMES R. WOOD, M.D., LL.D.,

BELLEVUE HOSPITAL, NOV. 4, 1871.

I. LITHOTOMY.

Gentlemen:—This little boy is two years and nine months old. Every time he micturates—and that is very often—he cries with pain, especially while passing the last few drops of urine. He is emaciated, nervous, uneasy. He has acquired a habit of crossing his legs in a fashion that is peculiar and characteristic. He clutches his prepuce and pulls away at it frantically, and in that way he has elongated his foreskin half an inch. Some time ago he was observed to pass mucus with his water, and of late he voids blood mucus and urine together. Now, gentlemen, what ails this little fellow? The question is of vital importance to him, for unless he finds speedy relief he is likely to waste away and die. The symptoms direct suspicion to the urinary apparatus, and especially to the bladder. He has pain on micturition. But this, you say, might be due to some lesion of the urethra. True; but now you have to explain the fact that pain is greatest when the act of micturition is about ending. What organ is undergoing a change at that time? Why, the bladder, and that only. The bladder is contracting to expel the urine, and presumably it contracts upon some hard substance that causes pain. So we are warranted in our indictment of the bladder. Now let us bring it to trial. One point of evidence we have already examined, namely, the pain, and that is found to tell strongly on the side of the prosecution. Next, the crossing of the legs is corroborative—reflex action from cystic irritation. Then, what about the tugging at the prepuce? Well, we often find, clinically, that in cystic derangements the pain is referred to the end of the penis. Finally, the blood and mucus are, at any rate, quite as likely to come from the bladder as from any other source. So we are forced to believe that the bladder is the culprit, and that it is guilty of containing some hard, foreign body, probably a stone. But stop; before announcing the verdict, let us have the testimony of an expert. I pass this expe-perienced sound down into the bladder, and now, if you sit very quiet, you can have audible confirmation of your opinion. Hear it! clink, clink—that metallic ring of the instrument, as it strikes against the calculus in the bladder. The diagnosis is established. Now, before we go any farther, let me whisper in your ears a little green-room "catch." When the professor of surgery has asked you the symptoms of vesical calculus, and you have described them as we have made them out here, he will say, "Very well, sir; but here is an old man who has no stone in his bladder, and yet he is troubled with frequent and painful micturition, and, moreover, he is much given to pulling at the head of his penis: how can you explain his performances?" Well, gentlemen, you will at once suspect that the poor old gentleman has prostatic enlargement, *i. e.*, a hypertrophied middle lobe of the prostate, acting as a ball-valve at the outlet of the bladder. You will remark that the old patient pulls at his urethra, not at the end of micturition, but when he is about to attempt urinating, as if to straighten out the obstructed canal, and that, as micturition advances, the pain is lessened. You will insist upon passing your finger into the rectum to feel for this enlarged prostate body, for it is not a gland, it is a muscle. The third lobe, by the way, does not exist at all normally. Finally, you will pass a catheter of good large curve into the bladder, empty it, and thus give the old man a few hours of elysian comfort. In that way you will make out a differential diagnosis, and "pass" your professor.

To return to our little patient. He has a stone in his bladder, which must be taken out in order to save his life. It must be cut out, for lithotrity and chemical solvents are not to be thought of in a case like this. It must be cut out through the perinæum, for that is the only route by which we can reach the bladder in children without jeoparding the peritonæum and other important structures. We must enter the bladder through the prostate body. If we cut anterior to the membranous portion of the urethra, we shall endanger the bulb with its arteries, etc.; if behind the prostate, we do fatal mischief to peritonæum, seminal vesicles, rectum, etc.; if either side of it, we go wandering off among vital organs in search of what we are not likely ever to find. We must then cut through the prostate body; or rather through its pericarp, so to speak, for the parenchyma of this organ is scarcely more than rudimentary in so young a child.

How shall we reach the prostate? Now, gentlemen, I am not going to tell you this morning the history of operative lithotomy, although the subject is exceedingly interesting. You can find a full account of the various operations that have been devised, in ancient and mediæval times, in Chelius' Surgery. Suffice for our present purposes that we have a choice of three

modes of entering the perinæum. First, we may make an incision along the median *raphé*, in front of the anus, comparable to the Marian operation; or, we may begin our incision at the raphé a half-inch behind the scrotum, and carry it obliquely outward to the left, to a point midway between the anus and the tuber ischii. Or finally, we may begin midway between the anus and the right tuber ischii, and sweep around behind the scrotum as before, to midway between the anus and the left tuber ischii.

The first is the median operation; the second, the lateral operation; the third, the bilateral operation. We might mention also the medio-bilateral operation, Allastor's median operation, Buchanan's operation, Sir William Ferguson's operation, and others. All are excellent, and sanctioned by the highest authorities. You shall see them all before the end of my lecture season. The median is a very safe operation, and quite suitable for the removal of a small calculus. Some of you saw me last winter remove in this way a piece of whalebone bougie which had slipped up into the bladder. The lateral operation has its merits likewise. But in the case of this little fellow, I shall proceed to the bilateral operation, which enables us to cut the prostate in its longest diameter, and places us in the best position for dealing with a large calculus, in case we find one too large to be removed by either of the other operations.

Now the little patient is etherized, we lay him on his back, with his buttocks at the edge of the table, and an assistant on each side flexes the legs and thighs. I pass in a grooved staff—as large as the urethra will allow—and my assistant holds it firmly in an upright position. Then I carry the forefinger of my left hand into the rectum, for the protection of that important organ. Now I make the crescentic sweep of the bistoury, which I described a moment ago. The bleeding is slight, for I have divided only one artery—the transverse perineal. The point of my knife has found the staff in the membranous portion of the urethra, and my assistant assures me that he feels distinctly the grating together of the two instruments. Notice how I have carried my incision upwards behind the pubes. That is because I am dealing with an infant. Remember that in young children the bladder is always cocked up in the abdomen, behind and above the symphysis pubis. Now I take out my knife, and insert this double-edged probe-pointed instrument, known in the shops as "Wood's Bisector." The beak is engaged in the groove of the staff. I take the staff in my left hand, depress it towards the scrotum, carry my bisector along the groove, and a gush of urine informs me that I have reached the bladder. Withdrawing the bisector, I immediately carry in my forefinger, touch the stone, remove the staff, introduce a forceps, grasp the calculus, gently withdraw it, and here it is—a rounded mulberry calculus, half an inch long. I judge by its shape that it has no fellow in the bladder, and my finger assures me that the bladder is now empty. I apply a lint-dressing moistened with dilute carbolic acid, and send the patient away to be put to bed. Some of you smiled when I called for the carbolic acid, and I hear it whispered that Professor Wood swears by carbolic acid. No, gentlemen; I don't swear by carbolic acid—I swear not at all—but I do certainly believe that it is invaluable as an antiseptic; and for confirmation of my belief I only ask you to go into my wards where it is used freely, and then into other wards where it is not, and compare the results obtained in each case.

I did not inject the bladder before operating; I rarely do, although I prefer to have the bladder partially filled with fluid, and therefore, when it is practicable, I require the patient to retain his urine for a couple of hours before being placed upon the operating-table. An inexperienced surgeon had better inject the bladder, rather than operate while it is empty.

I did not tie a catheter in the wound, to be left there 48 hours, more or less. This used to be thought requisite in order to prevent the urine from reaching the wounded tissues. But the practice was found to be ineffectual and a source of irritation. The urine will trickle out beside the catheter. Sometimes I leave one in for a few hours, to prevent a copious flow of urine over the newly-glazed surfaces; but even this is hardly worth while.

In conclusion, gentlemen, let me urge upon you the importance of making yourselves thoroughly familiar with the anatomy of the perinæum before undertaking any of these operations. A thorough anatomist can operate with comparative safety under any circumstances, and with almost any instrument. A weak anatomist is likely to blunder into irreparable mischief. You saw that my assistant, Professor Sayre, held the staff firmly and correctly, but we are not always so fortunate. Three years ago, Sir Henry Thompson invited me to see him operate for stone, in University Hospital, London. In the course of the operation, just at the critical moment, the assistant, anxious to witness the proceeding, leaned forward, and let the staff slip from its place. All was chaos. What did the great surgeon do in this great emergency? He calmly cut down anatomically to the bladder, completed his operation, and then said quietly, "Gentlemen, this is a very instructive operation; we have reached the bladder without a staff, removed the stone, and the patient will get well."

2. NEUROTOMY. MAN, ÆT. 40.

Gentlemen, some of you remember this man. He came into my clinique last winter, suffering from atrocious facial neuralgia. All manner of therapeutic agencies had been tried in vain. His sufferings were absolutely unendurable. You recollect the operation which I then performed. I made a crescentic incision below and parallel to the inferior border of the orbit, from the inner to the outer canthus, and another from the middle of this, perpendicular to it, and running nearly to the vermilion border of the lip, without opening the buccal cavity. I then dissected up the flaps, and brought into view the superior maxillary nerve as it emerged from the infraorbital foramen. This I broke up as thoroughly as possible. I even dissected out the terminal fibrillæ as far as I could reach. This portion of the superior maxillary nerve presented an appearance not unlike the cauda equina of the spinal cord.

I then opened the antrum of Highmore with a large trephine, and with a strong scissors separated the superior maxillary nerve from its connection with the orbital plate of the superior maxillary bone. I next perforated the posterior wall of the antrum with a small trephine, and then chiselled out a perpendicular portion of bone above the opening made by the trephine. The posterior orbital portion of the superior maxillary nerve was thus permitted to drop down into the antrum, and the nerve was now accessible all the way from the foramen rotundum of the sphenoid through the spheno-maxillary fissure to its point of exit on the face. With a pair of curved scissors I reached in behind Meckel's ganglion and divided the nerve close to the foramen rotundum. On withdrawing the severed portion of the nerve-trunk, I found that a portion of the ganglion of Meckel was connected with it, though internal to the nerve. Finally I broke up the ganglion with a blunt instrument. This concluded the

first operation; and the patient was immediately relieved from pain. There was little ground for hoping, however, that the cure would prove permanent. The operation which I have described has been performed several times, since its introduction by Dr. Carnochan, and, if the truth were known, I question whether a single case of permanent cure could be cited. I performed the operation on a lady from New Jersey a short time previous to my operation on this man, and as yet she has had no recurrence of pain in the region supplied by the superior maxillary, but she has been troubled with pain—slight, however—in the lower jaw.

This patient enjoyed a few months of respite from suffering, and then came trouble in the lower jaw. A second operation was demanded. I trephined the inferior maxilla and exsected the nerve. Furthermore, I introduced a curved bistoury into the patient's mouth, flatwise, on my finger beneath the mucous membrane, engaged its point in the inferior dental foramen, and thoroughly broke up the nerve where it entered the bone. The patient was again entirely relieved for a time. But his happiness was very brief. In a few weeks he came back suffering as badly as ever; and the first operation ever performed in this badly constructed, this disgracefully contrived amphitheatre, was this poor fellow's third experience in neurotomy. This time I divided all the branches of the trifacial on both sides at their points of emergence about the face. On the left side I plunged a knife in at the point where I had removed the disk of bone from the wall of the antrum, and cut the nerve-twigs in every direction. I divided the nerves at the supraorbital, infraorbital, mental, and inferior dental foramina, on both sides, with a view to cutting off all the connections of nerves on opposite sides. He went away relieved from pain.

But here he is again, imploring me to operate for the fourth time. His pain is in the lower jaw, on the left side; so I pass my bistoury into his mouth and sever the nerve as it is about entering the inferior dental canal. I have already explained the operation to you. There! I ask him if he suffers any pain now, and you hear his answer, "No." You remark the changed expression of his face. From looking the most miserable of men, he now appears the happiest. This man has no dread of the knife; on the contrary, he holds it a luxury to be cut. ["Yes, I do!"] Now, gentlemen, explain this case to me. What ails this man? Who of you will be pioneers in this wilderness of neurotic affections? There are men who tell you that it is idle for you to look towards making original investigations that will be of any value to the profession. Do not believe them, gentlemen. Every new fact in science suggests a multitude of others yet to be established. I counsel you, then, apply yourselves with energy to the work of extending the boundaries of experimental knowledge, and rest assured that you will be successful exactly in proportion to the skill and fidelity with which you toil. Find out the facts relating to these neuroses. Tell us about tetanus: what is its pathology? Why is it indigenous, so to speak, in certain localities—Suffolk County, L. I., for instance. I know a medical practitioner residing on the east end of Long Island, who chanced, while stepping about in his stockings, to run a brad into his foot. He knew too well how such injuries were wont to terminate in that region of country; so, almost speechless with terror, he sprang upon a horse and rode for his life out of the county. A railway train overtook him. He jumped on board and hurried to New York for surgical advice. I saw him at once: he had tetanus already—but it was hysterical tetanus! and he got well.

But tell me, some of you, What is the pathological distinction between hysterical, idiopathic, and traumatic tetanus? You don't know? and nobody can tell you? Well, then, go to work and find out for yourselves.

Reports of Hospitals.

MANHATTAN EYE AND EAR HOSPITAL.

A CASE OF IRIDOTOMY AND A CASE OF CATARACT EXTRACTION, FOLLOWED BY SEVERE PULMONARY INFLAMMATION.

Reported by DAVID WEBSTER, M.D.,
HOUSE SURGEON TO THE HOSPITAL.

Case I.—Service of Dr. Roosa. John P., Irishman, aged 48; admitted May 25, 1871.

Diagnosis: R. E., closure of pupil from old inflammation; L. E., general opacity of cornea, and previous iridectomy.

About three and a half years ago the left eye of the patient was wounded by a blow of a pick used for loosening earth. The result was total leucoma with synechia anterior of the injured eye, and complete closure of the pupil of the other eye by sympathetic inflammation.

May 27.—Iridotomy. A Graefe's narrow knife, used in cataract extractions, was carried through the cornea, the anterior chamber, and the iris. After several ineffectual attempts, Dr. Roosa succeeded in drawing out a small piece of the brittle iris with the iridectomy forceps, by placing the blades parallel to the surface of the cornea, and cut it off with the scissors. A bubble of air and some blood were left in the anterior chamber. A four-grain solution of sulphate of atropine was instilled, and Dr. Agnew's black silk dressing applied.

May 30.—The patient had a cough set in several days before the operation. It is now very troublesome and distressing. Pulse, 90; respiration, 25. Complains of pain, substernal and in left side. On auscultation and percussion no evidences of pneumonia were discovered; but there were moist rales in both lungs. An expectorant mixture was prescribed, and a large mustard plaster to left side of chest.

June 1.—Dr. Shultze was asked to examine the patient's chest, and diagnosticated pneumonia of the left lower lobe. He advised a large mustard plaster to chest, and nitrate of soda internally every two hours.

June 2.—The patient has active delirium; pulse, 100. Ice was applied to his head.

June 10.—The delirium continued three or four days, and other symptoms proportionately severe: but with milk and whiskey, or beef-tea, every three hours, and careful hygienic treatment, the patient soon began rapidly to recover. It was impossible to keep his eye shaded during his delirium; but the room was kept moderately darkened, and atropine was frequently dropped into his eye.

He was discharged at this date, counting fingers at six feet, having been in the hospital 16 days.

Some weeks later we were informed by his friends that he could see to make his way about alone with ease, and that he could almost see to read.

Case II.—Service of Dr. Roosa. William K., Irishman, aged 56, operated September 13, 1871, by cornea flap extraction downwards, with Beer's knife, under ether. It was thought that the iris was cut at the emergence of the knife, and an iridectomy was per-

formed. Some blood was left in the anterior chamber; no vitreous was lost, and no accident attended the operation. The ordinary flannel retentive bandage was applied over both eyes.

Sept. 14.—Patient has experienced no pain in eye since operation, and expresses his fears that it is a "dead bate." The bandage was removed, and atropine instilled without opening the eye. There was very little secretion, and the lids were looking healthy. The eye was very carefully cleaned with warm water, and the bandage reapplied. This was repeated on the 16th, and again on the 18th, at which time the eye was first opened; everything looked favorable.

Sept. 20.—The patient had some pain in his eye last night, and a severe attack of coughing and dyspnœa. His breathing is accompanied by loud whistling sounds, which, on auscultation, are heard through all the larger tubes, so as to mask any other sounds which may be present. Pulse and heart's action exceedingly irregular, and considerably accelerated. R. Hoffman's anodyne.

Sept. 22.—Bandage removed and shade substituted. Pupil black; a fine iridectomy; very little injection of blood-vessels; patient counts fingers and recognizes watch. R. Atrop. *ter die*.

The musical râles are much less, and the presence of subcrepitant râles, with coarse and fine bubbling sounds, shows that the patient has capillary bronchitis of both lungs. R. Potass. iod. gr. v. ter die.

Sept. 23.—Patient seems rather worse, but his eye is still doing perfectly well. Whiskey, ℥ ss., with milk, ℥ iss., three times a day ordered, and the patient to be kept in bed. Also R. Syr. ipecac. ℥ ss.; tinct. opii camph., ℥ iss. M. One teaspoonful to be taken three times a day.

Sept. 25.—The potass. iod. stopped, and the other medicine continued.

Sept. 26.—The patient called attention to a tumor situated below the diaphragm, and extending from the region of the liver three or four inches to the left of the median line; flat on percussion, and tender on pressure. He had never noticed it before. The surgeons were unanimous in the opinion that the tumor consisted of an enlarged liver. He affirms that he never drank spirits regularly, or in the morning before breakfast. He had chills and fever when a youth in Ireland.

Appetite tolerably good; bowels regular, but dejections of a pale ash color. R. Acid. nitro-muriatic. gtts. v. ter die, and the chest to be painted with tinct. iodine.

Oct. 1.—Much improved. Allowed to walk out.

Oct. 3.—A systolic murmur shows organic disease of the heart. The upper lobe of the left lung is decidedly emphysematous, a condition which is probably due to the existence of capillary bronchitis, and which may be expected to pass away with the latter.

The general condition of the patient being much better, he was discharged.

V.=⅔, with +4 for the distance, and with +2½ reads Jaeger No. II at one foot.

Sixteen days after leaving the hospital, this patient died, while under the care of Dr. E. S. Bates. The immediate cause of his death was general dropsy from the disease of his heart and liver.

We consider the two cases reported above as remarkable from two points of view:—First, they are the only cases on the hospital records in which severe lung complications have occurred during convalescence from delicate and important operations upon the eye; second, contrary to what one would naturally expect, the convalescence of the eye was not interfered with in either case; and the success in the iridotomy case was greater than was expected.

It is believed that the pneumonitis in the one case, and the capillary bronchitis in the other, may have been traumatic, and caused by the irritating effects of ether upon lungs already rendered abnormally sensitive by an ordinary bronchitis in the former, and by a cold caught by taking a warm bath the day before the operation, with subsequent carelessness on the part of the patient, in the latter.

Progress of Medical Science.

A Case of Early Pregnancy.—William McCollom, M.D., of Brooklyn, N. Y., reports the following case:—Jane F., single, born in Vermont, of American parentage, was reared in poverty until adopted by a respectable family in easy circumstances, at the age of eleven years. About this time, and soon after she entered upon her eleventh year, she reached puberty, and menstruated regularly up to the time of conception, which occurred in the early part of the month of March, 1864, after intercourse with an old sinner sixty years of age. Her age at the time she conceived was twelve years and nine months, and at the time of her confinement, at full term, December 10th, 1864, thirteen years and six months. She was at this time a bright, active girl, with a childish face, and with a mind corresponding with her years; but in other respects had a womanly development, weighing about ninety-five pounds, with well-developed pelvis, full rounded limbs, and finely developed mammæ.

I was in attendance soon after the commencement of labor, at five o'clock P.M. The pains were regular, with brief intervals of rest, gradually increasing in severity. On making an examination, found the os dilated to admit the point of index finger. After an hour and a half had elapsed she was suddenly seized, without premonitory symptoms, with quite severe epileptiform convulsions, immediately followed by coma and stertorous breathing. The pains continued, lessened in degree of force, with considerable regularity. She was bled in the arm, and kept under chloroform until labor was sufficiently advanced to allow me to apply the forceps at three o'clock A.M. I delivered her, without difficulty, of a living girl, which weighed six pounds and eight ounces. After the delivery of the child she continued in an unconscious comatose state until nine o'clock the next morning, when she gradually emerged from it, and made, together with the child, a good recovery. She had an abundant lacteal secretion, and nursed the child. She had no return of the eclampsia after an hour from the first seizure. The urine was not tested for albumen or casts; but she had at no time previous or subsequent to labor symptoms of uræmia.

Carbolic Acid in Intermittent Fever.—L. P. Yandell, Jr., M.D., Louisville, Ky. (*Am. Practitioner*), after having experimented with carbolic acid, according to Treulich's plan, upon between forty and fifty patients with intermittent fever, asserts that only two reported themselves cured; several imagined themselves somewhat benefited, but certainly in almost all there was no perceptible effect produced. His experience with carbolic acid leads him to class it, in point of efficacy, with corn-meal, table-salt, lemons, coffee, spiders, spider-web, and the myriad other ague-cures of domestic medicine, all of which have sometimes broken up intermittent fever. The only modern substances for quinine, which in his hands have proved worthy of commendation, are sulphate of cinchona and salicine, both of which are reliable antiperiodics. Next to

these is a powder consisting of four grains of alum and three grains of the dried sulphate of iron, given thrice daily for seven to fourteen days. In chronic intermittent, this combination is exceedingly efficacious. Strychnia has not yielded satisfactory results in his practice.

Sulpho-binate of Sodium in Dyspepsia.—Dr. Warren, of Boston (*Journ. Gynæcological Soc.*), has employed, with great benefit, the sulpho-binate of sodium in dyspepsia, especially that accompanying pregnancy. He gave it in doses of eight grains, three times a day.

Suppositories in the Use of the Pessary.—Dr. Ephraim Cutter, of Woburn, Mass. (*Journ. Gynæcological Soc.*), in an excellent article on "Retroversion of the Uterus," advocates suppositories of iodoform, grs. ij. to grs. x. cocoa butter, before or after the use of the pessary, they being useful to allay vaginal irritation.

Apoplexy.—L. S. Pilcher, M.D., U.S.A. (*Mich. Univ. Med. Journ.*), states that the 158 cases of apoplexy examined by him warrant the following general statements: 1st. The tendency of apoplexy is greater among males than females. 2d. The tendency to apoplexy increases at a definite rate, as age advances, doubling with each additional decennial period. 3d. The medullary substance of the cerebral hemispheres with the corpora striata and thalami optici is the portion of the brain in which apoplectic effusions most commonly occur. 4th. Apoplectic effusions upon the surface of the brain, of meningeal origin, not traumatic in their character, are sufficiently common. Their comparative frequency is greatest under the age of thirty years. 5th. That portion of the brain substance which forms the parietes of apoplectic cavities is almost invariably softened and broken down, as the result of the violence of the effusion. 6th. Degeneration of the walls of the capillaries of the brain is the only lesion invariably existing in individuals who have had apoplectic effusions. 7th. In a large proportion of cases this degeneration is excited and accelerated by renal disease, both alone and associated with cardiac hypertrophy.

In a large proportion of cases the immediate cause of rupture of the diseased vessels is their over-distention, the consequence of cardiac hypertrophy.

Pseudo-Membranous Croup.—In concluding a paper on this subject, with report of a fatal case, D. T. Gilliam, M.D., of Nelsonville, Ohio (*The Clinic*), gives the following deductions: 1st. Lime-water is of very questionable utility in these cases; for to be of a strength sufficient to be of any appreciable benefit as a solvent, it is so irritating to the mucous membrane of the air-passages as to penetrate and extend inflammation; it thereby subverts its own ends. 2d. In the natural order of things, the false membrane is cast off by becoming detached from the mucous surface, and not by a process of di-integration from without inward, as we would to effect by the use of lime-water, lactic acid, etc. 3d. A remedy to be rational and effectual, must exercise a soothing influence over the inflamed mucous membrane, abate inflammation, and hasten the process of detachment *en masse*. 4th. In steam we have the agent that most nearly approaches to our ideal of the remedy indicated. It acts as a poultice to the inflamed air-passages, soothing, mollifying, abating the inflammation, and by its warmth and moisture softening and promoting the early detachment of the false membrane. 5th. Tracheotomy should be performed early, and vaporization kept up continually, if life would be saved; but if tracheotomy be not resorted to in time to save life, it should be performed with a view to euthanasia.

Excisions of the Head of the Femur.—Asst. Surgeon George A. Otis, U. S. A. (*Circ. No. 2*), finds that there were sixty-three excisions of the head of the femur performed during our late war. Of these thirty-two were primary, twenty-two intermediate, and nine were secondary operations. Forty-eight were performed by Union, and fifteen by Confederate surgeons. In forty-three cases the injuries were inflicted by conoidal musket-balls; in twelve by musket-balls the form of which is not designated.

Of the thirty-two primary excisions, the operations were performed in every case within twenty-four hours of the reception of the injury, and in most instances within two or three hours. Two of the operations succeeded. In the thirty unsuccessful cases, the mean duration of life after the operation was a little over seven days. The majority died in two or three days from shock, one patient surviving sixty days.

Of the twenty-two intermediate excisions, two resulted successfully. The shortest interval between the reception of the injury and the date of operation was two days; the longest was twenty-eight days; the average interval was thirteen and a half days. Of the nine secondary excisions, one was successful.—*Balt. Med. Journal.*

Typhus and Meningitic Patients.—Dr. A. B. Arnold, Baltimore, Md. (*Balt. Med. Journal*), says it is well known that middle-aged persons contribute the majority of typhus patients. According to Dr. Murchison, the average age of 3 456 cases of typhus admitted into the London Fever Hospital was 29.33 years of age. On the other hand, children and very young persons contribute the greatest class of patients in epidemic meningitis. In typhus the temperature of the body attains its maximum on the fourth day, ranging from 103° to 104°, and in the succeeding days the heat has a regular rise and fall in the morning and evening. These thermometrical variations are of course not observed in epidemic meningitis.

Simple Luxation of the Semi-Lunar Bone.—A case of simple luxation of the semi-lunar bone, on the anterior portion of the right wrist of a sailor, æt. 25 years—an exceedingly rare accident, is reported by C. Granville Stone, student at the University of Maryland.—*Balt. Med. Journal.*

Spirit from Coffee Pulp.—Experiments recently carried on in India have proved that coffee pulp will yield, upon distillation, nine per cent. of its own weight of spirit, equal in strength to Scotch whiskey.

Still another Speculum Vaginæ.—Dr. J. Byrne, Surgeon to St. Mary's Hospital, Brooklyn, N. Y. (*Am. Journ. Obstetrics*), has introduced a new self-retaining speculum, which, as a perineal retractor, is not inferior to Sims' instrument. It is adapted to both hospital and private practice, and especially the latter, as an assistant is not required, and the back position is avoided. This speculum, when ready for use, consists of six parts or pieces, so arranged that the whole can be instantly pulled asunder and readjusted in a moment, the object being to make it portable; and, being constructed of German silver wire and tubing, is neither too bulky nor too heavy to carry in a vest-pocket.

The Introduction of the Speculum.—Dr. Henry Miller, of Louisville, Ky. (*Am. Journ. Obstetrics*), says that the speculum was not used in his city before the year 1835, when the late Dr. A. P. Elston brought one with him from Paris. Dr. John Sharpless, of Philadelphia, informed him that he was the first to employ the speculum in Philadelphia, in 1835, when it met with the ridicule and censure of the highest medical authorities of that city. Dr. Sharpless visited

Paris expressly to qualify himself for this branch of practice under the celebrated M. Ricord, who assured him that he was the first American whom he had known to provide himself with a speculum before returning home.

Sudden Death after Parturition.—Four unusual cases of sudden death soon after parturition are related by Thomas More Madden, M.D., M.R.I.A., Dublin, in the *American Journal of Obstetrics*. He observes that the cause of death in two of these cases is not, as far as he is aware, mentioned by any other writer on sudden death after labor, namely, one from sloughing of the cervix uteri, the other from rupture of a varicocele of the left ovarian vein.

Chronic Inversion of the Uterus.—At a recent meeting of the Gynæcological Society of Boston, the Secretary read a communication from Prof. S. D. Gross, of Philadelphia, in reference to his suggestion in "System of Surgery," 1864, p. 840, in the treatment of chronic inversion of the uterus: "In reflecting upon the nature of this affection—inversion of the uterus—it has occurred to me that the reduction, especially in cases of long standing, might be greatly expedited by a slight vertical incision on each side of the neck of the tumor, where the chief cause of the difficulty is situated, the principle being the same as in the operation for paraphymosis." He stated that Dr. Emmet, and Prof. Gaillard Thomas, of New York, and Prof. Henry Miller, of Louisville, Ky., had not alluded to his suggestion in their valuable articles on the treatment of inversion of the uterus; but in the *British and Foreign Medico-Chirurgical Review*, Dr. Barnes, of London, said that he had succeeded in one instance in effecting reduction by the expedient in question. He made no reference, however, to the writings of Prof. Gross, and it is therefore altogether probable that the suggestion occurred to him independently of any knowledge of the paragraph above described. In closing, Prof. Gross remarked that it had been a source of surprise to him, that the idea had not occurred long ago to obstetric practitioners.—*Jour. Gynæcological Society.*

Iron in Uterine Injections.—In a discussion on uterine injections, at a late meeting of the New York Obstetrical Society (*Am. Journal Obstetrics*), Dr. Noeggerath believed the subsulphate of iron less dangerous than the sesquichloride, from the use of which he once occasioned a metro-peritonitis.

Progressive Muscular Atrophy.—A case of "Progressive Muscular Atrophy, Simulating Glosso-Labio-Laryngeal Paralysis," is related by T. M. B. Cross, M.D., New York (*Journal Psychological Medicine*); from which the subjoined deductions are drawn: The motor cells are only partially involved at the origin of the facial nerves. The embarrassment in speech arises from three factors, namely, the weakened tongue, the paresis of the lips, and the paralysis of the soft palate; these, conjointly reacting upon each other, are the cause of all the difficulty in articulation, and are the result of the changes taking place in the nuclei of the hypoglossal and facial nerves. The diminution in the electric contractility of the tongue is directly caused by the loss of its muscular fibre, while the fibrillary contractions which are the precursors of atrophy, together with the loss of power and the lack of dexterity in performing nice manipulations with the left hand, show very plainly that the disease has already the cervical enlargement.

Fatal Reflex Paralysis from a Slight Flesh-Wound of the Neck.—Dr. Benjamin Howard, New York (*Journal Psychological Medicine*), reports the case of a lieutenant with fatal reflex paralysis from a slight wound, who was wounded at the second battle of Bull Run, and was found two days afterward where he fell.

The patient stated that he was wounded in the neck, and had not been able to move. On examination, a wound was found, less than half an inch in depth, and about an inch in length, running transversely across the anterior margin of the left sterno-cleido-mastoideus, opposite the cricoid cartilage, and apparently completely anterior to the course of the phrenic nerve. No other wound or contusion could be found. The patient's mind was clear, and he complained of nothing except total inability of motion, which was found to exist from the site of the wound downward.

Owing to the nature of the circumstances, no notes could be taken on successive days, but he afterward learned that on the ninth day after receiving the wound the patient died in an ambulance *en route* to Washington. This seems to have been one of those rare instances in which shock to one of the sympathetic branches produces, through its connections with the spinal system, paralysis more or less complete at all points below.

Cerebral Hemorrhage.—Of 229 cases of cerebral hemorrhage noted by Prof. W. A. Hammond, in his "Diseases of the Nervous System," 204 occurred in persons over 40 years of age. Of these, 172 were between 40 and 60, 24 between 60 and 70, 5 between 70 and 80, and 3 over 80. Of the 25 cases in persons under 40, 17 were between 30 and 40, 7 between 20 and 30, and 1 under 20. The disease is said to be certainly more common among men than women, though other authors have been led to hold the contrary opinion.—*Journal of Psychological Medicine.*

Management of Epilepsy.—Dr. Brown-Séquard recommends, in the treatment of epilepsy, the following combination of the bromides of ammonium and potassium: ℞. Potassii iodidi, ʒj.; Potass. bicarb. ʒij.; Potassii bromidi, ʒj.; Ammonii bromidi, ʒ iiss.; Inf. columbæ, ʒ vj.

S. A teaspoonful before each of the three meals, and three teaspoonfuls at bedtime, with a little water.

Dr. Robert Bartholow's (*Fisk Fund Prize Essay*) plan of treatment consists in giving a powder, containing two scruples of bromide of potassium dissolved in water, three times a day, and after the cessation of the paroxysms a drachm dose at bedtime only. It is now well known that a patient cannot omit his dose for a single day without danger of having the attacks return, and he cannot be considered exempt until he has passed two years without a convulsive seizure.

To prevent the development of bromism Brown-Séquard is in the habit of combining arsenic with the bromide of potassium. Since using this combination, he has not observed so much the debility caused by its prolonged administration. The use of iron, strychnia, the hypophosphites, is also indicated to maintain the health of epileptics during a course of bromide of potassium. The hygienical means consist of abundant food, wine, out-door employment, and a careful regulation of the moral life.

Strychnia in Hypodermic Medication.—Dr. R. A. Vance, of N. Y. (*Med. World*), says that the solution of strychnia, for hypodermic medication, which his experience has taught him to consider best is one containing a grain of the drug to one drachm of water; the solution being effected by the addition of a small quantity of dilute acetic acid. His formula is the following:

R. Strychniæ sulph. gr. i.; Acid. acet. dil. ℥ i.; Aquæ ad ʒ i. M. S. Ft. sol.

This formula will be found especially convenient by those who supply themselves with a case containing a hypodermic syringe and bottle, made by Geo. Tiemann & Co. The quantity called for by the above prescription will just fill the bottle which it contains, while the strength of the solution is well adapted to the subdivisions of the syringe. Thus, one minim of the liquid contains one-sixtieth of a grain—the usual dose with which it is customary to commence the treatment of any case of paralysis. Should it seem desirable to begin with a smaller quantity (and this is frequently the case), as minute a dose as the four hundred and eightieth part of a grain—equivalent to one-eighth of a minim—can be employed.

Extroversion of the Bladder.—Dr. John Ashhurst, Jr., Surg. to the Episcopal Hospital, Phila. (*Am. Journ. Med. Sciences*), refers to twenty cases (including his own) in which plastic operations have been resorted to during the last eighteen years, for the relief of exstrophy of the bladder. Of these 20 cases, 14 were absolutely successful, 3 were failures (Holmes 2, Wood 1)—the patients' condition being, however, in no degree rendered worse by the operation—while 3 terminated fatally (Richard, Pancoast, Wood), though in only one (Richard) was death attributable to the interference of the surgeon. Of the 20 patients, 16 were males and 4 females; 13 were under and 5 over twenty years of age, the age of the other two not being mentioned.

A Novel Method of Producing Sleep in Infants.—Dr. Curran, writing in the *Dublin Quarterly Journal of Med. Sci.*, of the Medical History of the Himalayas, speaks of a curious way which the women of the country have of quieting their children when obliged to leave them. When a mother goes into the field to work, or is otherwise unable to take her child with her, she selects some sheltered spot near a stream, in which she places some straw for a bed for her infant, and then directs, by means of a piece of split bamboo, a current of water, of from one to two or three inches in diameter on its uncovered occiput and temples. This produces a soporific effect, which generally lasts as long as the water continues to flow. The sleep is said to be very soothing, and children who have been much subjected to its influence are known to have been unusually free from the annoyances incidental to the period of dentition.

Phthisis in Australia.—Dr. Singleton contributes an article on this subject to the July number of the *Australian Medical Journal*, and claims for the climate of Victoria: 1. Unparalleled salubrity, the death-rate being but 17 per 1,000. 2. From the meteorological tables of Mr. Ellery as to the Victorian temperature, rain-fall, dryness of atmosphere, etc., such a conclusion might naturally be deduced. 3. That the mortality there from phthisis is 95 per cent. less than in England and Wales; 1 in 808 in the former, and 1 in 421 in the latter country. 4. That a greater disparity exists as regards diseases of the respiratory organs; that of England being upwards of 100 per cent. higher. 5. That the mortality in Melbourne from phthisis is little over half of what exists in other large towns in Scotland, England, or America. 6. That some of the causes of increased mortality in large cities and towns are now apparent, and can be remedied. 7. That the disease in Victoria has been diminishing during the past ten years, and this notwithstanding the numerous arrivals of consumptive persons in the decayed stages of the disease, whose deaths have swelled the Victorian tables.

"Sewage-fed" Beef.—Dr. Cobbold has been employed by the Committee of the British Association to examine and report as to the presence of parasites in the flesh of a cow which was reared and fattened exclusively on the products of sewage irrigation. The superficial muscles with their associated areolar tissue and aponeurotic coverings were particularly investigated. Portions of certain muscles were dissected through and through. The brain, lungs, liver, bladder, kidneys, paunch, reed, cœcum, and other divisions of the intestinal canal, were all scrutinized. Dr. Cobbold states that the animal in question was free from parasites of any kind, but strong in his opinion of the dangers of sewage irrigation. He attributed this marked negative result to the following circumstances:— 1. The animal did not graze on the farm, but was fed exclusively on vegetable products, cut and carried from the land. 2. The porous nature of the soil and subsoil alike carried off the sewage, and thus insures the passage of the parasitic germs into the soil itself.

The doctor noticed "a remarkable absence at Briton's farm of those molluscan and insect forms of life which play the part of intermediary bearers. The only molluscs found were obtained from a pit of water to which sewage had no access. They were free from carcasian larvæ."

New Treatment for Wens.—Dr. A. J. Perkins says, in the *Georgia Medical Companion*, that the hypodermic syringe is an effectual instrument in the cure of those encysted tumors of the scalp usually called wens, where the patient objects to the knife. It is to be charged with pure tincture of iodine and the point inserted well into the body of the tumor, and as much of the tincture forced in as the tumor will contain. In a few days the sac shrinks away from the surrounding parts, and may be easily removed.

Control of Hemorrhage by Ipecac.—Dr. Martin reports to the *N. Y. Medical Journal* a case of capillary hemorrhage controlled by small doses of ipecac, given until vomiting occurred. The tonsil had been injured, and ordinary styptics not proving efficacious, recourse was had to ipecac. As soon as vomiting occurred, after two-grain doses of the medicine given every two hours, the hemorrhage was effectually checked.

Fatal Hemorrhage from Swallowing a Fish Bone.—Dr. A. Y. P. Garnett (*National Medical Journal*) reports the unusual case of death resulting from swallowing a portion of the jaw-bone of a fish. Much pain followed, apparently at a point where the bone had lodged in the passage down the œsophagus, just at the cardiac orifice. By passing a probang, the passage of the bone through the cardiac orifice into the stomach was demonstrated. Believing that all danger was now passed, morphine was administered to relieve the pain, which still continued to some extent. On the fifth day, after having progressed favorably, the patient was seized with severe pain in the same location as previously felt, and shortly after vomited a large angular bone, which was succeeded by a copious discharge of florid blood. Ice was applied externally, and persulphate of iron internally. Through the brisk application of these agents the patient at first revived, but soon sank, and died after repeated discharges of blood.

Propylomin in Rheumatism of the Uterus.—Dr. D. B. Rees (*Chicago Medical Times*) reports a case in which he diagnosticated rheumatism of the uterus. Having tried several remedies, he was induced to use propylomin. Recovery was rapid.

Function of the Prostate.—Dr. Kraus (editor of the Vienna *Med. Times*) says he believes he has discovered some essential points relative to the function of the prostate, and presents some statements which he thinks deserve attention:—

1. Seminal fluid, so long as it remains within the testes, vesicles, and other seminal passages, is colorless and scentless, and in appearance exactly like fresh honey in the comb, and in reaction neutral.

2. When it has quitted the passages and arrived in the urethra, it acquires its white color and peculiar faint smell.

3. During its passage through the prostatic portion of the urethra the prostate empties out its fluid, colors the semen white, and confers upon it the faculty of coagulating when exposed to the air. Semen, when taken from the vesicles, does not coagulate, remaining clear, colorless, and scentless.

4. Spermatozoa, in the absence of the prostatic fluid, cannot live in the mucous membrane of the uterus of mammalia; with its aid, however, they may live a long time, often more than thirty-six hours. From the above Dr. Kraus concludes that the prostatic fluid exercises an unlimited influence on the viability of the spermatozoa, sustaining it when engendered by the secretions of the mucous membrane of the uterus.—*Med. Times and Gazette.*

Treatment of Intermittent Fever by Carbolic Acid.—Dr. Treulich (*Boston Med. and Surg. Journal*) publishes eight cases of intermittent fever promptly cured by carbolic acid. His formula is: R. acidi carbolici, gr. iij; inf. gentian, ℥ v; syr. simpl. ℥ ij. M. Dose, ℥ j ter die.

Carbolic acid, he affirms, is an admirable remedy for intermittent fever, even for obstinate cases which have resisted quinine. Its action is speedy and certain, and it requires such a small amount that it cannot possibly have any injurious effect on the system. The average amount required was four and one-eighth grains. It costs only one thirty-fifth of what quinine does, and so is to be preferred for the poor. This successful use of carbolic acid proves to him that the action of quinine in intermittent fever is antiparasitic. It also favors the opinion that intermittent fever is the result of a blood-poison.

A Case of Partridge Poisoning.—Dr. John Homans, of Boston (*Med. and Surg. Journal*), reports a severe case of partridge poisoning, the patient, a male, æt. 40, being relieved by the usual remedies. When questioned, he said the partridge tasted quite bitter, but not otherwise remarkable. There was snow on the ground at the time.

Osteo-Myelitis and Purulent Infection.—M. Démarquay has promised to give to the profession the result of his surgical experiences during both sieges of Paris, and is now occupied in arranging for publication the large quantity of materials which he has collected. Meantime he has communicated to the Academy of Medicine in Paris some of his views on the subject of pyæmia. In every case where during life symptoms of the affection were observed, *post-mortem* examination subsequently revealed the existence of osteo-myelitis in the bone or bones of the fractured limb. In these the osteo-myelitis occurred in the injured bones alone, in some cases when the primary injury was apparently of inconsiderable severity, and even where the missile striking the bone had not fractured, but only grazed it. He observes that in spontaneous osteo-myelitis death takes place as it does in the traumatic form of the affection, although in the former no contact of air can take place so as to alter the condition of the fluids contained in the medullary canal, and give to them that peculiar fœtid character so readily distinguishable; on the other hand, experiments have demonstrated that absorption of fluids in the medullary canal takes place rapidly under certain conditions. Similar results have followed from the injection of pus into the medullary canal; and, in the opinion of M. Démarquay and M. Gosselin, osteo-myelitis must, for these reasons, for the future hold an important place in the study of the two forms of hospital disease known respectively among our French brethren as *infection purulente* and *infection putride*, forms which, although according to M. Guérin, closely related to each other, are readily distinguishable at the side of the patient's bed. The results of various experiments performed upon rabbits, in support of his views in these diseases, were laid before the Academy by M. Démarquay. He had carefully injected pus into the medullary canal of an unlucky rodent; the animal died, and its liver and lungs, containing numbers of metastatic abscesses, were laid upon the table, he observing at the same time that suppuration in those organs was not a constant accompaniment of *infection purulente*, but that in every such case where *post-mortem* examination fails to reveal them, the application of the saw to a long bone will discover its medullary cavity in a state of osteo-myelitis.—*The Doctor.*

Chlorate of Potash in Uterine Epithelioma.—In the *Bull. Dell. Scienze M. d. Bologna*, Dr. Ercoli says that chlorate of potash has been used with success in carcinoma of the face, both in men and animals, in some instances. After amputation of the intra-vaginal portion of the cervix uteri by galvano-caustic, in a patient aged fifty, as the hardness of the divided tissue and its friability indicated that the neoplasm had attacked the part of the neck above the vagina, the surgeon used injections with a saturated solution of chlorate of potash. After three months of this treatment the lancinating pains diminished, as well as the serous leucorrhœa and the irritation. Since then, and in consequence of this amelioration, dressings were made by means of the speculum, each day, with this solution, and injections morning and evening. The wound put on a better aspect, and six months afterwards had lost its tendency towards proliferation, the bottom of the ulcer sinking and becoming narrowed. The hemorrhage diminished in frequency and intensity, and the general condition was so much ameliorated that the patient considered herself cured, but the surgeon did not dare to count on so happy a result, although the curative action of the remedy appeared to him undeniable in this case.—*Ibid.*

Emphysema in Diphtheria.—Four cases of emphysema of the surface, in diphtheria, are related by Dr. Güterbock, in *Virchow's Archives*. He thinks, as originally suggested by Virchow, that the air of interlobular emphysema finds its way by the bronchi into the cellular tissue. Such cases are therefore much more serious than those of emphysema after tracheotomy, which operation is, in fact, not rendered more dangerous by the complication in question.

Paralysis of the Muscles of the Pharynx following Embolism of the Left Vertebral Artery.—A laborer, sixty-eight years of age, received an injury to his chest, followed by pain over the left side of the occiput and neck, which disappeared in a few days. No ribs were broken. About six weeks after receiving the injury he became sick, and in the course of the day lost the power of swallowing. Numbness of the right arm and leg was present, but no loss of power. Right

pupil dilated, but sensitive to light. Strenuous efforts to swallow failed to accomplish the act, the fluid being returned through the nose. Strychnia, administered endermically until muscular twitchings were produced, failed to give relief. Patient died from exhaustion two weeks later, and at the autopsy an embolus was found in the left vertebral artery.—*Br. Med. Jour.*

Treatment of Superficial Abscess of the Neck.—The inutility of present modes of treating this affection, as it occurs in feeble and strumous children, will render acceptable to the surgeon any mode of treatment which will enable him to avoid the unsightly scars which result in the majority of cases. The method recommended by Lawson Tait, of tapping with a Pravazo syringe, will not succeed in a certain number of cases, owing to the character of the discharge being such that it cannot be made to pass through the canula; but in the case of a fluid discharge it has answered in many cases admirably. Dr. Murray (*Br. Med. Jour.* of February, 1871) advises the use of a carbolated cord of catgut, which is to be drawn through the tumor. A piece of fine silver wire answers the purpose equally well, or better (Dr. Crean, *Med. Press and Circular*, No. 1, 707); and the use of the catgut or silver seton have the advantage over the plan of tapping, that they are constant in their operation, cause less injury of the skin, and require but one operation for their introduction, which in the case of a nervous and easily terrified child is a fact worthy of consideration. Cases treated by the plan of "draining" are reported to have recovered rapidly, and without a scar remaining.

Arterial Transfusion of Blood is recommended by Professor Hueter, in the *Centralblatt*, in preference to its introduction by the veins; two reasons being that the introduction of air into the heart and pulmonary circulation is thereby prevented, any air admitted being absorbed in the passage of the blood through the capillaries; and that a larger quantity can be in this manner introduced without risking over-distension of the heart. The introduction of such small quantities as two, three, or four ounces, he regards as useless—in most instances from eight ounces to a pound being requisite. He has tried the plan with success in three cases, where it was used to remove the symptoms accompanying intense septicæmia.

Eucaliptus Globus.—The smoke of the leaves of this Australian tree is said to afford great relief when inhaled in cases of asthma. It has also been tried with great success in dyspnœa from the presence of an aneurismal tumor in the trachea.—*The Practitioner.*

Powdered Camphor in Phagedenic Chancroid, according to M. Baudoin (*L'Abeille Méd.*), serves to arrest the progress of this disease as well as in the case of hospital gangrene, as shown by M. Netter.

Vaginal Hysterotomy.—According to the *Nashville Journal of Medicine and Surgery*, the first operation of vaginal hysterotomy ever performed in America was by J. M. Briggs, M.D., of Bowling Green, Kentucky, in 1830, a physician of more than fifty years' experience, and who now, in his seventy-fifth year, is still in practice.

A Very Aged Negress.—"Aunt Vick," of Harpeth Hills, Tennessee, born in August, 1756, in Camden, N. C., consequently in her one hundred and sixteenth year, has lately been visited by Dr. W. K. Bowling, of the *Nashville Journal of Medicine and Surgery*. She spoke with clearness, though very hard of hearing; has never been sick, and boasts that a doctor never gave her any "stuff." She has two children, the youngest being seventy-five years of age.

Medical Counsellors.—Jas. Paget, D.C.L., F.R.S.S., (*Lancet*), in a clinical lecture on "Dissection Wounds," in connection with his late illness, remarked that Sir William Lawrence used to say that he had not known any one recover on whose case more than seven had consulted. Our art has improved. He had the happiness of being attended by nine: Dr. Burrows, Sir William Jenner, Dr. Gull, Dr. Andrew, Dr. Gee, Mr. Cæsar Hawkins, Mr. Savory, Mr. Thomas Smith, and Mr. Karkeek. He says, in this multitude of counsellors was safety.

Infant Mortality in Australia.—Dr. Charles McCarthy (*Australian Medical Gazette*) observes that from June, 1853, to June 30, 1870, the interments at all ages in the Melbourne General Cemetery amounted to 52,794, and 19,798 of that number were under one year, 25,452 under two years, 29,674 under five years, and 30,467 under ten years,—that is, that out of every hundred interments, 37½ were under one year, 48 under two years, 56 under five years, and nearly 60 under ten years, and this in one of the finest climates in the world, and in the absence of poverty and privation.

The Diseases of Alaska.—Dr. W. T. Wythe (*Pacific Medical and Surgical Journal*), in his "Medical Notes on Alaska," states that bronchitis is never absent there; catarrh is seen at every change of the weather. Pneumonia often occurs, and in sporadic cases assumes a typhoid type. Rheumatism is very obstinate, and occurs very often, and generally takes the articular form. Tuberculous diseases are very common among both natives and whites. Phthisis pulmonalis runs a fearfully rapid course. Eczema is often seen, but yields readily to treatment. Syphilis is slowly but surely killing all the natives of the north-west coast. Rheumatism, bronchitis, and scurvy are the prevailing diseases. Tranverse fractures of the lower portion of the radius often happen from accidents peculiar to the country, viz., trapping and rowing. Varioia has never reached Alaska.

Cancer of Breast.—Prof. Agnew, of the University of Pennsylvania (*Med. Times*), in a clinical lecture on "Cancer of the Breast," with implication of the lymphatics of the axilla, in a female, æt. 35, thought no operative proceeding advisable in this case. The patient was directed to take iodide of arsenic in doses of one-twentieth of a grain three times a day for an extended period, with a view of arresting, if possible, the cancerous growth, while local applications of opium-plaster were ordered to alleviate pain.

Tumor of the Clitoris.—At a recent session of the Pathological Society of Philadelphia, Dr. W. Penn Buck (*Phila. Med. Times*) presented for F. F. Maury a large *tumor of the clitoris*, of three years' growth, removed from a woman aged 28. At the end of the first year it was the size of a hen's egg, after which it remained stationary for nine months, when it again rapidly grew until it attained three inches in diameter. It was covered by an integument like that of the scrotum.

Specimens of Nitrated Charcoal.—Mr. Leopold Babo, of Boston (*Journal Gynæcological Soc.*), presented, at a late meeting of this flourishing society, specimens of nitrated charcoal for applying the actual cautery to the cervix uteri. Dr. Storer remarked that the coals perfectly answered their indication.

The Medical Record.

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MICRO-PHOTOGRAPHY BY SUNLIGHT.

Making due allowance for the overdrawn statements of enthusiasts, it must be admitted that microscopy has done a great deal for every branch of medicine and surgery. No one is therefore backward in acknowledging the necessity for its cultivation as a science, and all interested in the progress of an art must hail with satisfaction any means to such an end.

Perhaps no one in this country has worked with more singleness of purpose in that direction than Assistant-Surgeon J. J. Woodward, at Washington. Possessed with remarkable skill and extended experience in every department of microscopy, and having all the necessary apparatus at his command, he has succeeded in solving many difficult problems of the science, and in reducing the obstacles in the way of their solution to a minimum. Not the least of these is the discovering of a new method of photographing by sunlight. The profession are already informed of the results of the experiments of this gentleman in the production of photo-micrographs by the electric and magnesium lights, and not a few have seen the surprisingly beautiful and accurate pictures which he has by such means produced. The use of sunlight in micro-photography has been attended with so many difficulties, and the results have been so unsatisfactory, that in a practical point of view it became of little if any account. But Assistant-Surgeon Woodward, as the result of much study, has succeeded in substituting solar for artificial light, and has been enabled to make photographic delineations of the microscopic field, which in definition and accurate detail challenge competition.

In his report to Surgeon-General J. K. Barnes, U.S.A., he thus describes his method:—

"The details of my new method are as follows: The microscope being placed on a shelf at the window of the dark room, and its body made horizontal, the achromatic condenser is illuminated by a solar pencil reflected from a heliostat upon a movable mirror outside the shutter and thence into the dark room precisely as described in my original paper on photo-micrography (*American Journal of Science and Arts*, September, 1866). No ground glass is used, but instead a lens mounted in a suitable tube is fixed in the opening of the shutter through which the solar pencil enters. This lens is an achromatic combination about two inches in transverse diameter and of about ten inches focal length. It is placed at such a distance from the achromatic condenser that the solar rays are brought to a focus and begin again to diverge before they reach the lowest glass of the achromatic condenser.

"For anatomical preparations requiring for their display from two to five hundred diameters I use an $\frac{1}{8}$ of an inch objective, without an eye-piece, obtaining the precise power desired by variations in the distance of the sensitive plate from the stage of the instrument. I have lately given the preference to immersion objectives, the corrections of which I find are generally well suited to photographic requirements.

"Now with an $\frac{1}{8}$ objective and the arrangement above described, the field is so brilliantly illuminated that the eye cannot safely be permitted to look down the tube. The image is therefore received on a piece of white card-board, and sitting by the microscope to make the adjustment, I view the card with both eyes precisely as in the case of the ordinary solar microscope. With these arrangements, the card-board placed from two to four feet from the stage of the microscope is sufficiently well illuminated to permit distinct vision, even when objectives of the shortest focus are used and powers of five to ten thousand diameters obtained. While the object is thus seen on the white screen in its natural colors, the cover corrections, focussing, management of the achromatic condenser, and selection of the portion of the preparation to be photographed, are readily managed. When all is satisfactory, I insert an ammonio-sulphate cell between the large lens and the achromatic condenser, and draw down the velvet hood which prevents leakage of light from about the microscope into the dark room; then going to the plate-holder I make the final focussing in the usual way on the ground glass, or on plate glass with the help of a focussing glass, according to the nature of the object.

"With powers of five hundred diameters or less, I at first experienced some difficulty in giving the right exposure; for as the time required was but a fraction of a second, it was a matter of some difficulty to regulate it with precision. At length I succeeded by arranging a sliding-shutter, with a transverse slit of variable width, so adjusted as to fall with its own weight before the tube of the microscope, the exposure being made during the passage, and the time of exposure regulated by the width given to the slit.

"Of course it occurred to me that for such short exposures the heliostat might be dispensed with, and I found on trial without it that a large right-angled prism used in the position of total reflection, or even an ordinary mirror gave excellent results; the exposures being even shorter than when the heliostat was used, since there was but a single reflection. I could not satisfy myself, however, that the quality of the pictures differed from those obtained with the help of the heliostat, except, perhaps, that in certain cases the prism seemed to offer advantages which will be referred to hereafter. Under these circumstances the heliostat appears desirable for ordinary use, since the solar pencil being thrown in a constant direction, the trouble of

adjusting the illumination of a series of objects is considerably diminished; but I have convinced myself by trial that equally good pictures can be produced without it, even with very high powers, a circumstance of considerable interest where motives of economy preclude the microscopist from procuring this convenient instrument."

There are many other points connected with the subject, such as the proper selection of lenses, and the modifications of the apparatus necessary to obtain different results, etc., but their detailed reference will not serve our present purpose; we merely desire to present to the microscopists, and the profession generally, the results of the labors of Dr. Woodward, and to commend his method to the attention of microscopists as being one of the best, if not the best, means of bringing the results of their labors in a tangible form before every one interested in the study of microscopy generally. We have seen some of the negatives by this method, and have been surprised at their beauty and truthfulness.

The Faculty of the Detroit Medical College have decided to allow no students to enter for graduation who have attended their *first* course of lectures the winter preceding, thus relieving this college of the *opprobrium* which has been heretofore attached to spring or summer schools. We commend their action to similar schools.

We are informed by one of the Jamaica papers that a surgeon of that island has been lately admitted as a minister to the Church of England. This is certainly a very praiseworthy act in itself, and we generally find that its performance is the result of a solemn duty paid to conscience. But in the present instance the design of the newly-made minister is to continue the practice of his legitimate profession, adding thereto the sacerdotal functions. The public are informed that the surgeon will practise "exactly as before his ordination;" and in another place, that the said surgeon entered the Church, "not with any worldly object in view, but simply that he might obtain greater influence, through his formal and solemn recognition of a Minister of his Master, Christ, to do good to the souls of men,—to minister to spiritual disease where opportunity offered, —to combine, in fact, ministerial with medical functions, where, in course of the active practice of his secular profession, *which he has no intention whatever of abandoning*, he might find a favorable moment to direct a sick or dying person to that source from whence alone can be obtained the remission of sins, and life eternal." It is also stated that he intends to live by his profession, but to give his ministerial services gratuitously. Of course, the good people of his parish will see that he does not lack patients, but the poor patients are to be pitied even more than their doubled-headed adviser. If it were not for the curious advertisement that is given to this performance, we would be inclined to look upon the affair as due to the lack of ordinary common sense, but under the circumstances we have a right to assume that it is one of those base prostitutions of Christianity of which even the veriest charlatan would be ashamed. The old trick of the doctor being called out of church in the midst of the service is very well understood by the people, but our newly-made minister has hit upon an improvement, and we would not be backward in giving him the full credit for his ingenuity. We are not informed as to any special gift he may have for preaching; but we are not afraid to predict that he could give a very interesting sermon from the text, Matthew, chap. vii. verse xv., "Beware of false prophets, which come to you in sheep's clothing, but inwardly they are ravening wolves."

In consequence of want of space in our last issue, we were denied the opportunity of bringing to the notice of such of our readers as are alumni of the Rush Medical College of Chicago, the urgent necessity of aiding, by pecuniary contributions, the rebuilding of that institution recently destroyed by the great fire. Four years since the Faculty erected the present building, at a cost of seventy thousand dollars, and as a building it enjoyed the reputation of being the best appointed one in the Northwest. The faculty, with an undaunted spirit, say, "The College must be rebuilt." Under the circumstances it is unfair to expect them to sustain all the pecuniary responsibilities. They are consequently constrained to call upon the graduates and such other of their friends as have the ability and the disposition to aid in their praiseworthy undertaking.

"For every donation of five hundred dollars the Trustees will establish a perpetual free scholarship, which shall bear the name of the donor, and which shall be conspicuously emblazoned on the wall of the lecture room. A certificate of this scholarship, engrossed on parchment, will be issued to the donor; which certificate shall secure to the bearer free tuition, and when found qualified, free graduation. This certificate shall be perpetual in its operation; and thus the donor will have endowed for one student each year a Free Medical College." All donations may be remitted to Chas. T. Parkes, M.D., 462 Elston Av., Chicago, who has been elected treasurer for the fund. They will be thankfully acknowledged, and faithfully devoted to the rebuilding of the College.

A New Portuguese Medical Journal.—*O Correio Medico* is the name of a new medical journal which has just been started in Lisbon. Its editors are Dr. Alves Branco, Physician to the Royal Hospital of San José, and Dr. Silva Amádo, Pathologist and Curator of the Museum at the Royal School of Medicine of Lisbon. The rare disease, known as "African Lethargus," is fully described in the first numbers of this journal.

Reviews and Notices of Books.

THE ANTISEPTIC SYSTEM: a Treatise on Carbolic Acid and its Compounds, with inquiries into the Germ Theories of Fermentation, Putrefaction, and Infection; the Theory and Practice of Disinfection, and the Practical Applications of Antiseptics, especially in Medicine and Surgery. By ARTHUR ERNEST SANSOM, M.D., London, Member Royal College of Physicians, etc. Philadelphia: J. B. Lippincott & Co. 1871.

CARBOLIC acid has, within the past few years, claimed such an amount of attention from every class of practical scientists that it is no wonder that it should begin to have a literature of its own. M. Lemaire was the first who offered his contribution to this object, and since 1865, although the investigations and experiments regarding the effects of carbolic acid have been numerous and interesting, the accounts of the same have been scattered into every scientific journal within the bounds of civilization. This accumulation of material has taken place since 1865, when M. Lemaire's book first appeared. Although it answered its purpose well, and served to direct the attention of scientific men into practical currents, it nevertheless had only a utility for such as were acquainted with the French language. Dr. Sansom, so well known in this country by a practical work on chloroform and its uses, has enjoyed, as the pupil of Beale, of London, unusual facilities for the study of the subject of which his present work treats. He brings to its discussion not only the ardor of an enthusiast, but the calm judgment of a faithful student of truth.

To a certain class of investigators, whom we must call the real students in our profession, the perusal of the work will be attended by the utmost satisfaction. No pains have been spared by our author in accumulating facts, in grouping them in their proper relations, and in drawing from their testimony the legitimate conclusions of an impartial judgment.

The first three chapters are occupied in the history and pharmaceutical manipulation and in the combinations of carbolic acid. Then follows, in the succeeding chapters, a discussion of the phenomena of fermentation and putrefaction in their relations to the germ theory, and to the collateral inquiry concerning the origin of life and to the causation and treatment of transmissible diseases. Very many interesting data never before collected together are presented. The views of Pastern, Pouchet, and Pennetier, all receive respectful and candid consideration, and the reader is left with the weight of the argument in favor of the germ theory. Theoretically speaking, this is the most acceptable one to explain the well-known actions of carbolic acid in arresting fermentation and putrefaction, and until the arguments in favor of such a theory are met with equal ability by the advocates of spontaneous generation, the conclusions of our author must be accepted by the profession at large.

It is impossible, in a work like the one we have before us, to follow the line of the argument, as it necessitates the statement of facts which of themselves comprise the greater bulk of a volume of 351 pages.

The application of carbolic acid and of its compounds to the treatment of medical and surgical diseases is a subject concerning which every practical man should take a great interest. In the present work every known application of carbolic acid is noted, and every care taken to give such facts, concerning positive and relative effects, as are borne out by actual experience. To the practitioner who has not the time nor the inclination to interest himself in the strictly scientific portion of the inquiry, this portion of the work will redeem itself in his eyes, and make it an indispensable addition to his library. This is the truly practical portion of the work, and will be found of immense utility to every one engaged in the treatment of disease. Aside from recording the results of experience, our author gives us some very valuable suggestions as to the use of new compounds of this acid in the future treatment of diseases to which it may be found applicable.

In the appendix are nine beautiful full-page engravings from Beale, bearing upon the subject of infection, concerning which much of interesting material is presented. To present our readers with a review of the facts and observations of the author, not a few of which are original, we shall give his conclusions in his own words: "I have been led to enunciate the theory that the poisons of spreading diseases are extremely minute living organisms, having the characteristic endowments of vegetable growths, analogous to the minute particles of vegetable protoplasm, whose function it is to disintegrate and convert complex organic products, owing their specific properties in the special diseases, not to any botanical peculiarities, but to the characters implanted in them by the soil in which they first sprang from innocuous parents, and from which they are transmitted—this soil (except in the case of their earliest origin) being the fluids of the animal body."

In conclusion we commend the book as an interesting and profitable one for the student and the general practitioner. Each can find in it facts of extreme interest, not only as bearing upon the theory enunciated by our author, but as facts *per se* which each can apply to his individual profit and instruction, being of course free to draw his own conclusions. As a work upon a subject in which every progressive student of medical science should have an interest, it is, in its elaboration of many abstruse points, and in its efforts to force theory to conform with the experience of practice, an invaluable contribution to science.

THE EYE IN HEALTH AND DISEASE. By B. JOY JEFFRIES, A.M., M.D. Boston: Alexander Moore. 1871.

WE very much like this book, and very long it has been needed.

The style is excellent, and the writer tells the lay reader enough and not too much. Dr. Jeffries deserves the thanks not only of the laity, but of the profession for this most admirable and timely treatise; for whoever writes a good book for the people, on topics of medical science, so far increases the good influence of our profession. Patients who read such books as these will be more respectful to science, more considerate and reasonable with their medical adviser, and will pay his fees more promptly, than those who are left in that ignorance which everywhere breeds superstition and meanness.

Who now will give us a similar work on the ear, the throat, the skin, and nervous system? Young men to the front, and banish Dio Lewis, Hall, Bellows, and all that noisy bawling crowd of charlatans to everlasting darkness, prepared for those impudent pretenders who write on subjects that they know nothing about. Just as it is the duty of our merchants to purify legislation and drive Tweed & Co. from politics, just so is it the duty of our profession to purify hygiene and drive Lewis & Co. from popular science. The only antidotes to vice and ignorance are virtue and knowledge. The only way to get rid of these men whose names we have mentioned is to put decent men in their places. Dr. Jeffries has already stepped forward; who will support him?

On Some Disorders of the Nervous System in Childhood. By Charles West, M.D. Philadelphia: Henry C. Lea.

Dr. West is justly distinguished as a writer in his department, and he has properly earned his fame. This little work is valuable chiefly for its suggestiveness. The style of the work is excellent, and all physicians would do well to give it a careful reading.

But, like nearly all old Englishmen, Dr. West is old fogy to the death. The therapeutics of the work is, to say the least, ten years behind the times.

When an Englishman makes up his mind to be an old fogy there is no half-way work about it, and the more able he is, and the more cultivated and the more radical he may have been in his youth, the more completely he shuts his eyes to the progress of the age.

Hand-Book of Skin Diseases. By Dr. Isidor Neumann. Translated from the second German edition, with Notes, by Lucius D. Bulkley, M.D. D. Appleton & Co. New York: 1872.

Diseases of the Skin; the Recent Advances in their Pathology and Treatment. By B. Joy Jeffries, A.M., M.D.

A few weeks ago we called the attention of our readers to the admirable Manual of Skin Diseases by Dr. Tilbury Fox. We have now two other works upon the same branch under our notice: the one a translation of Neumann's text-book, the other a prize essay of the Boylston Medical Committee.

The first German edition of the hand-book of Dr. Neumann was published in 1869, and was followed by a second and somewhat enlarged edition in about two years, and of this last edition Dr. Bulkley has made his translation. The reason of the great success of the work in Germany was that it supplied a want very much felt there, in giving in a compact form the mass of microscopical knowledge of skin lesions which had been accumulating for years. This, in short, was the chief aim of the book, and the two editions have been noticeable for the preponderance of microscopical anatomy over clinical history and treatment. There certainly is no work extant which deals so thoroughly with the pathological anatomy of the skin as does this hand-book, and we may also say, on the contrary, that there has not been published of late years a work purporting to be a hand-book of skin diseases, which is so utterly barren in good and clear descriptions of skin diseases and their diagnostic features as this same hand-book. Indeed, in reading over the descriptions of the various diseases of the skin in this work, a reader at all familiar with them is in a continual state of amazement, and he wonders how an author who occupies so deservedly high a position in the dermatological world could send out a work as a hand-book which is so wholly deficient in these absolutely essential features. To the German medical world this want is not as apparent as it is to our American readers, for the Germans have long paid much attention to the clinical teaching of dermatology, and in Hebra's great work they had access to descriptions of skin diseases which are unrivalled in any language, so that to them Dr. Neumann's work was a sort of supplement, presenting the microscopic anatomy of these diseases in an admirable manner. But here in America little attention has been paid to these diseases until within a very few years, and our want is for a book of clinical description rather than of minute anatomy. In the causation of skin diseases we find that Neumann, like most Germans, attaches most importance to the influence of external causes, and he almost wholly ignores systemic conditions as causes. We can only regard this as a very narrow-minded view, and one not conducive to material progress in the treatment of these diseases. The treatment, as given in this work, is in the main very lame and unsatisfactory; in fact, it is presented in such a desultory manner as to leave the reader in doubt as to what course he should pursue. So that it will be seen that the chief aim of the author was to produce a compendium containing the results of the microscopic study of skin diseases, and that such important parts as clinical description and treatment were only cursorily treated of and inserted merely to attain a *quasi* completeness. It is evident from these facts, which are not at all overdrawn, that Dr. Neumann's work is not one of large scope, and that the demand for it in this country would be by those few who pay especial attention to skin diseases, and therefore to the student or general practitioner it would be almost a dead letter. There, however, will come a time when such a book will be absolutely necessary. Dr. Bulkley says in his preface that he recognizes the deficiencies of the work, and tells us that he has endeavored to remedy them by notes; but we think that all readers are proverbially averse to foot-notes even in small quantities; but when they are given in such profusion as are necessitated by the wants of this book, they, we think, will be passed over unread. It is true that we see evidences of labor on Dr. Bulkley's part to render the work a complete manual by giving the views of the authorities of the day upon the various subjects; but the effect is lost to the reader by his having too many different views to remember, and the impression is left upon his mind that some one is wrong, therefore he wonders who is right. Then again, when we consider how deficient the work is for the American public, it will be seen that nothing short of a very complete reconstruction of the whole would make it of use to American physicians. We think that Dr. Bulkley would have accomplished his task much more satisfactorily had he done nothing but translate the text, which in general he has done well. The American edition is well printed, but the illustrations are coarse and harsh, and do not compare well with the originals.

Dr. Jeffries' little volume is an attempt, within the limits of a prize essay, to record the progress recently made in the pathology and treatment of diseases of the skin. Such a work must of necessity be suggestive rather than exhaustive, and upon perusal we find that the value of the work is chiefly to those who are already familiar with the subject, as it presents in a compact form the gist of numerous articles which are scattered through the journals. It is to be regretted that the author has assumed so dictatorial a style, and that he has chosen to speak disparagingly of many earnest workers in dermatology. He seems to fix his views upon a German standpoint, and then glory in their being unassailable in the fact that they are German; and this he does to the exclusion, in many instances, of a just appreciation of the work of others. Then again, we find him somewhat given to reckless statements; for instance, he says, while deploring the existing chaotic condition of dermatological literature, in speaking of classification, that "every writer of even a twenty-page monograph seems to consider that it must occupy a large and often the most important part of his special publication." This, we think, is greatly overdrawn. Then in another place he says: "There is not, for instance, any book in English which a student or a practitioner can study, whilst he follows the clinique and the lectures at any hospital where these are to be found." The work displays an extensive acquaintance with general dermatological literature,

and it is to be regretted very much that it is marred with the imperfections we have pointed out. The work originally appeared in the *American Journal of Dermatology and Syphilography.*

THE DRUGGIST'S GENERAL RECEIPT-BOOK, comprising a copious Veterinary Formulary, with numerous Receipts in Patent and Proprietary Medicines, Druggists' Nostrums, etc., Perfumery and Cosmetics, Beverages, Dietetic Articles and Condiments, Trade Chemicals, Scientific Processes, and an Appendix of useful Tables. By HENRY BEASLEY, author of "Book of Prescriptions, etc." Seventh American, from last London ed. Phila.: Lindsay & Blakiston. 8vo, pp. 497.

As the title indicates, this work contains a good deal of information to such as may stand in need of it. As is common with works of its class, mixed up with the good is a considerable amount of trash, useless material which it requires some considerable stretch of the imagination to apply to the practical wants of even the druggist. This remark applies to the composition of cosmetics and of the different quack nostrums, new and old, which, being entirely of English origin, have hardly a passing interest to the American reader. The articles described under the head of Veterinary Medicine are exceedingly numerous, and their uses are detailed in the majority of cases in a very unsatisfactory way. The real value of the work to the druggist, for whom it seems specially intended, is in those portions giving recipes for the manufacture of the really salable compounds. In this regard it contains enough of valuable material to more than cover the price of the volume for any one who is engaged in the business of compounding medicines, making perfumes, blackings, varnishes, etc.

TREATMENT AND PREVENTION OF DECAY OF THE TEETH: A Practical and Popular Treatise. By ROBERT ARTHUR, M.D., D.D.S., etc. Phila.: J. B. Lippincott & Co. 1871. 12mo, pp. 256.

THE object of the author of this volume is to impress upon the public the importance of attention to the teeth, and an early application to the dentist as the best safeguard against future trouble. He holds to the very proper opinion that when the ordinary precautionary measures are taken, there is very little if any liability to decay. Great stress is laid upon the necessity of separating teeth in contact with each other, and of afterwards polishing the surfaces, a neglect of both of which precautions leads almost inevitably to a destruction of the organs implicated. The author is accurate in his descriptions, forcible in his arguments, and conscientious in his aims. It is a work calculated to do a great deal of good.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 8, 1871.

DR. A. L. LOOMIS, PRESIDENT, in the Chair.

TRAUMATIC ANEURISM OF SHOULDER. THE RESULT OF INJURY IN ATTEMPTING TO REDUCE A DISLOCATION.

DR. MASON presented the os brachii removed from a man thirty-six years of age. He gave the history as follows:—"One day, on leaving the Charity Hospital, I was informed by my house-surgeon that a man had just arrived, with a large abscess of the shoulder. I directed him to open it. The next day I was informed that the abscess had been evacuated, that a pint of pus had been discharged, but that the patient had nearly bled to death. The hemorrhage was checked with a great deal of difficulty by lint and persulphate of iron. On the following morning, I found a large, robust-looking man, exceedingly anæmic, with an arm and shoulder swollen to the size of a man's thigh. It was very evident from the appearance of things that this was a case not only of abscess, but of traumatic aneurism. A few days afterwards the lint was removed, and a large quantity of fetid pus was discharged. This discharge continued for some weeks. On rotating the arm crepitus was discovered at the shoulder-joint, and it was then supposed to be fracture of the cervical neck of the os brachii with attendant necrosis."

On consultation it was decided to open the wound, and in case the bone was found to be diseased, to exsect it. This was done June 26, the patient having been etherized. While placing him under the anæsthetic, Dr. M. detected the head of the bone lying just beneath the clavicle. By a slight manipulation this was reduced in position. On examination with the finger in the wound this portion of the bone was found denuded and dead, and the wound being enlarged it was accordingly removed. In the course of this procedure, a large quantity of coagulated blood was turned out of the sac. It was concluded that the posterior circumflex artery was the seat of the hemorrhage, as a vessel corresponding in its situation was found patulous. This was secured after a good deal of difficulty, on account of the sloughing tissue in the neighborhood. At one time the prospect of securing the vessel was so slim, and the patient was so fast sinking, that the idea of resorting to amputation of the shoulder-joint was seriously entertained.

The patient made a very excellent recovery, and every motion of the limb was preserved, save that of raising it more than four or five inches from the side.

After the operation the patient told for the first time a true history of his case. It seems that on the 19th of May, being slightly intoxicated, he went to sleep on the door-step and fell three or four feet, striking on a part of his body which he believed to be his shoulder. The next day he went to his work, but was unable to move the limb, and his fellow-workmen told him he had dislocated his shoulder, twisted and pulled the limb, giving him a great deal of pain and causing a good deal of swelling, which appeared rather suddenly. This swelling continued to give him so much pain that he was forced to enter the hospital for relief.

NECROSIS OF HEAD OF OS BRACHII FROM INJURY—INABILITY TO USE DELTOID AFTER RESECTIONS.

The second specimen was the head of the os brachii, removed by operation on the 25th August, from a colored man, aged twenty-nine years, an inmate of the Colored Home. While at sea he fell, striking on his shoulder. An abscess appeared soon after at the point of injury, and opened itself. He then entered one of the Boston hospitals, when a free incision was made upon the part. When he afterwards entered the Colored Home, Dr. M. found necrosis of the head of the bone, and removed the same by exsection. The patient recovered entirely, with good use of the limb, but previous to the operation it was utterly useless. In both cases the patients, as is commonly the case, have been unable to elevate the limb from the side, although in both instances the circumflex nerve was uninjured in the operation. The cause of the crepitus in the first case was easily explained by the necrosed head of

a brachii rubbing against the lower edge of the glenoid cavity.

Dr. Van Geison thought that the motions of the limbs would be increased after the lapse of more time. He had seen one such case in which, eighteen months after the operation, the patient was able to raise the arm at a right angle from the side.

Dr. Sayre supposed that the inability to raise the arm in these cases was due to the fact that the origin and insertion of the deltoid muscle were more or less approximated as the immediate result of the operations.

Dr. Mason remarked that Dr. Hodges, of Boston, who had studied these operations very thoroughly, had come to the conclusion that the loss of a special motion was due to an injury to the circumflex nerve.

Dr. Loomis had seen within the last year a case of an officer who had exsection performed during the early part of the last war, and yet, notwithstanding the lapse of time, was still unable to raise the limb more than three inches from the side. He had all the other motions perfect.

A LARGE SEBACEOUS TUMOR.

Dr. Sayre presented a specimen of sebaceous tumor removed from the right arm of a patient of Charity Hospital. He was forty-two years of age, and the growth had continued for a number of years. It was remarkable for its size, being ten inches in its long diameter, and six inches in short diameter, and weighing a pound. It was filled with a sebaceous material of a putty-like consistency.

NECROSIS OF LOWER PORTION OF FEMUR SIMULATING WHITE SWELLING.

He also exhibited another specimen, which was one of necrosis of lower and external aspect of femur caused by a patient being run over forty years before, and was supposed, as is usual in such cases, to be a bona fide white swelling of the knee-joint. The necrosed bone was removed, and the joint found to be perfectly free from disease. This case, in his opinion, belonged to a class in which a severe bruise of the external soft tissues of the knee results in a tearing or cutting of the periosteum overlying the edge of the external arm of the linea aspera, inducing in time inflammation of that membrane, and death of that portion of the bone supplied by it.

CARCINOMATOUS TUMOR OF BRAIN—THE TREATMENT OF CONGESTIVE CONVULSIONS BY VENESECTION.

Dr. Sewall exhibited a small tumor removed from the brain of a lady who died on the 26th of July last. She was then 49 years of age. About a year ago this coming December he attended her for a severe bilious attack, from which she made a fair recovery. During the following January she was seized almost every day throughout the entire month with sudden attacks of giddiness, with loss of sight, some numbness of the lower extremities, during which she was obliged to lie down. These would last for three or four minutes, when she would get up and appear as well as usual. As she was going through the climacteric period these symptoms did not appear to have any unusual significance. On the 2d of the following February, she was seized with a very violent epileptiform convulsion, which was accompanied with paralysis of the left lower extremity. A consultation was called, when a pint of blood was immediately taken, with the effect of relieving the convulsions and the paralysis. From that time also her attacks of giddiness seem to have left her. The only remarkable symptom for the succeeding month or two was a continuously rapid pulse. She continued in this state until the middle of June, when she was seized with another severe convulsion, similar in character to the preceding one, but not attended with paralysis. Venesection was again resorted to, with the same happy result. Her general health after this seemed to deteriorate. She had a suffused face; there was a marked incoherency in her conversation; her gait became tottering. A few days previous to death she complained of very severe pain in the head, which continued more or less until July 26, when she gradually sank into coma and died. At the autopsy a tumor about the size of a pullet's egg, irregular in form and surrounded with some smaller tumors of a similar kind, was found situated in the middle and at the base of the right hemisphere of the brain. Examined under the microscope it was found to be cancerous.

Dr. Finnell asked why chloroform had not been administered in the case of convulsions.

Dr. Sewall answered that from the suffused face, the bounding pulse, and the rapid appearance of the paralysis, it did not seem that anything but venesection was called for, and the good effect of that treatment was a proof that the opinion was a correct one.

Dr. Caro, who saw the case in consultation, was of the same opinion. It was impossible not to associate the paralysis with the temporary congestion of the brain as a cause. He, in common with Dr. Sewall, could not see how the chloroform could do as well; it certainly could not relieve a condition dependent, as this was, purely upon a hyperæmia of the brain.

Dr. Sewall remarked that chloroform might relieve the convulsions, but this would necessarily only be temporary, whereas the venesection, in this case, not only arrested the attacks, but at the same time removed the exciting cause.

Dr. Finnell believed in chloroform in all cases of convulsions. It was the first thing he thought of, and had never found it to disappoint him.

Dr. Eager thought that the treatment by Dr. Sewall was eminently proper under the circumstances.

Dr. Briddon stated that he had seen a large number of cases of puerperal convulsions, and whenever he had treated such by venesection he had been uniformly successful. His point was to use the remedy early. In some cases where chloroform had been used first, and had the ordinary effect of arresting the convulsions for a time, venesection not only did this, but speedily restored consciousness.

AVULSION OF A NASO-PHARYNGEAL POLYPUS.

Dr. W. R. Whitehead presented a polypus with the following remarks:—

There are circumstances connected with the removal of these polypi which make it extremely interesting, especially when we consider the difficulties which often attend their entire extirpation. The necessity of their complete removal to prevent recurrence, the formidable operations which are sometimes necessary to get at these tumors, and the peculiar difficulties from hemorrhage which may embarrass the operator, are all subjects of the utmost importance for the right management of such cases. It is well known that it is sometimes necessary to split the palate in order to get at these polypi, and remove them. Nelaton did not hesitate to excise a considerable portion of the bony vault of the palate to extirpate a large naso-pharyngeal polypus. There are other operations for their removal, in appearance still more formidable. Gensoul was probably the first to extirpate the superior maxilla in order to make these polypi more accessible. A partial excision of the upper maxilla may sometimes be required; or better still, when the exigencies of the case call for such for-

midable measures, the superior maxilla may be partially excised, and temporarily displaced downwards. For this purpose an incision through the middle of the upper lip around the ala of the nose to the inner angle of the eye will leave less disfigurement than any other incisions. To split the palate would be followed by less inconvenience in some cases; because the palate can be readily reunited with silver sutures immediately after the removal of the polypus. This case convinces me of the inefficacy of the ligature, and indeed of its entire unreliability in the treatment of naso-pharyngeal polypi.

You can never be quite sure that the ligature constricts the pedicle, or that it even embraces it; when one of these polypi has a number of attachments—as for instance, to the periosteum of the basilar process or on the under-surface of the turbinated bones, or in places quite inaccessible to the ligature as ordinarily applied—the most effectual way to deal with it is to remove it by avulsion by means of a broad tape loop, and with the aid of forceps or the fingers. It is when the polypus is of considerable magnitude, that one of the very formidable operations which we have mentioned becomes necessary.

One of the points of great practical interest in the present case, as you will observe, is that it was quite impossible to embrace the pedicle either with the ligature or the wire loop of the écraseur, and that this was not discovered until after the breaking of the wire and the avulsion of the polypus, in a remarkable manner, with the fingers.

The history of the case is thus briefly told:—Miss T., of Connecticut, consulted me about eight months ago for difficulty in breathing. She stated that some time previously she had a small polypus of the nose torn away with forceps through the right nostril. At the time she first saw me a careful examination with gum-elastic bougies, and by other means, failed to reveal the presence of a foreign body in the nasal passages. A few weeks ago she visited me again, and this time a large polypus was seen to project slightly below the velum palati when she pronounced the sound of Ah. A wax bougie was readily carried through the nose into the throat to the outer side of the polypus, which was on the right side. I decided to remove it by avulsion with a pair of stout forceps, and for this purpose thought that it would possibly be necessary to split the soft palate, or at least to follow the example of Maisonneuve, and make a button-hole incision in the velum to facilitate the removal of the growth.

A day was appointed for an operation. There was no difficulty in passing a loop of waxed linen thread around the polypus, through the nose, by means of a gum-elastic catheter. The thread was drawn up well, and tightly tied. At Dr. Burrall's suggestion, who kindly assisted me, we used a little wire écraseur. Having no annealed iron wire with us I substituted in its stead copper wire, which was passed around the polypus, through the nose, and adjusted to the écraseur. The patient was etherized, and I commenced to work the instrument. The wire broke twice. I returned to my original design, to split the palate and remove the tumor by avulsion-gag, with forceps. Wishing, however, to explore the polypus as thoroughly as possible before dividing the soft palate, I introduced, with a certain degree of force, the index finger of my right hand behind the velum, and as far up as possible. I found that I could get a "purchase" on the tumor, if I may be permitted to use the expression, by hooking my finger behind it, and that at the same time I could slip the thumb of the same hand into the mouth, and press the tumor anteriorly. In fact, in this manner I seized it with the index finger and thumb. By a firm twist and slight pull I tore out the polypus by its roots.

You will observe that it is lobulated, and offers the appearance and shape, at a distance, of a child's heart. This polypus measures 2¾ inches in length, and 2½ inches in its greatest circumference, and is apparently muco-fibrous in structure, and has a small pedicle.

THE CURE OF CANCER BY ELECTROLYSIS.

Dr. Neftel presented sections of carcinomatous deposit removed post-mortem from a lady who had died in consequence of mammary cancer. About two years ago she noticed a hard and painful lump in right mamma. This increased, and, with the pain, extended to the axilla. These masses were removed by operation. Soon after the operation she had an attack of pneumonia, from which she did not recover until the lapse of several months. In the mean time the wound cicatrized, but the pain still continued, and extended down the arm of that side, making it almost useless. After several months she felt that the cicatrix became indurated, and from these there seemed to be a string of smaller lumps, which aroused the suspicion in Dr. N.'s mind that the disease had translated itself to some internal organ; she then insisted upon being treated by electrolysis, and the treatment was pursued in conjunction with Dr. Bailey, of Albany. To the surprise of Dr. N. not only did the secondary tumors disappear, but the patient improved in general health. So marked was this latter effect that Dr. N. was inclined to believe that he had been mistaken in his diagnosis of internal metastasis. After several months tumors again showed themselves in the same locality; these were treated, and likewise disappeared. Finally, the cervical glands became affected, and she began to suffer from asthmatic attacks, in consequence of pressure upon the pneumogastric; these were succeeded by an attack of pleurisy, due to cancerous exudation, and she finally died delirious. At the autopsy the liver, lungs, and cervical glands were found infiltrated with cancerous material.

In speaking of the effects of electrolytic treatment upon cancer, Dr. N. stated that he had reason to believe it would always be successful if employed before the disease had become constitutional.

CARCINOMA OF DURA MATER—THE THIRD LEFT FRONTAL CONVOLUTION INVOLVED, AND NO APHASIA.

Dr. Briddon presented a specimen of the above with the following history:—The patient from whom this specimen was removed first came under my observation in the month of June, 1867, and at that time interested me sufficiently to insure a record which I have not been able to lay my hands upon, and which was in all probability mislaid during the removal of my office papers.

The patient was a gentleman of fine commanding appearance; he was forty-six years of age, member of a healthy family, with no hereditary or acquired taint of disease; he had lost his sense of smell six or seven years before, but not regarding it significant of evil, and experiencing but little inconvenience from the loss, which had come on gradually, he had paid no attention to it and had always been accustomed to look upon himself as a perfectly sound man.

On the occasion of my first visiting him he had been prostrated by an epileptiform attack, which had been preceded by intense headache and insomnia; the head symptoms continued for some time, accompanied by some disturbances of vision, the precise character of which I do not remember; my observations extended over a period of some weeks, during which time I as-

certained that all the other organs of his body were in a normal condition, and only after some time did I venture to diagnose the probable existence of an intracranial growth.

I next saw the patient in the month of August of the same year, 1867; he had had another epileptiform seizure, preceded and followed by headache of a very severe character, and he was fast becoming amaurotic.

After the attack of 1867 I saw no more of him until the second day of March, 1871; he had then been completely blind for a period of three years; his pupils were dark, clear, and dilated; the globes were tense, and I think bulged a little; at all events I could not insinuate the point of the finger as far between the globe and the wall of the orbit as I thought I had done on a former occasion; there was no paralysis of the muscles of the orbit, face, or extremities; his complaint was of intense pain just above the left frontal eminence; it was described as excruciating in character, a steady continuous ache, with occasional but irregular remissions; no treatment appeared to avail, and after a few weeks it subsided to return. In the month of June, when I again saw him, he was then becoming childish, did not respond promptly when spoken to, and had frequent hallucinations of varying character; he would sometimes hesitate when spoken to, but always found his words and never misplaced them; his only complaint was of headache; his appetite was good, but it was manifest that he had entirely lost his sense of taste. He would call for all kinds of highly seasoned dishes, and on having bread and milk placed before him, would despatch it with all the relish of a gourmand; in the same way he would speak of water handed to him in response to a demand for brandy as of most excellent quality.

On the 26th of July acute symptoms of pressure effects began to manifest themselves; he lay in a condition of stupor, from which it was difficult to rouse him; his face and head were flushed; there was incomplete ptosis on the left side, and occasionally his breathing would become stertorous; there was at this time a marked difference in the pulsations of the radials, for which I could not account. As there was no cardiac mischief or trouble about the great vessels, the left radial was more than double the volume of the right; rate of pulsations, 116. I think the left globe was a trifle more prominent than the right. During the next six days the stupor gradually deepened into coma, all reflex functions were gradually abolished; there was complete anæsthesia in both upper and lower extremities, but there certainly was not motor paralysis, as the patient would occasionally move both his arms and legs.

He died on the 1st day of August.

Autopsy, sixteen hours after death. — Calvarium thicker than usual; dura mater, or rather the visceral arachnoid, was adherent to a slight extent to the convex surface of the left hemisphere along the border of the longitudinal fissure; on passing the fingers beneath the anterior lobes for the purpose of turning out the brain, it was found adherent to the floor of the anterior fossæ by what appeared to be a growth having firm attachments to that portion of the base of the cranium. The tentorium was then divided; cerebellum and posterior lobes of cerebrum were lifted from their bed, medulla and cranial nerves being divided from behind forwards, and the whole mass rolled out, leaving exposed to view a tumor which had the following appearance and connections: it was of the size of a small orange, of about two inches and a half in diameter; its surface was red and granular, and its consistence firm; antero-posteriorly it reached from the crista galli to the posterior clinoid processes, covering the cribriform plate of the ethmoid; laterally it overlapped the lesser wings of the sphenoid; it was firmly attached centrally and at its base to the superior and posterior boundaries of the ethmoid cells, *i.e.*, to the cribriform lamella of that bone and to the body of the sphenoid; the olfactory bulbs were flattened in some parts, and in others appeared to be entirely wanting; the optic nerves were not distinguishable; the orbital plates of the frontal bone and lesser wings of the sphenoid were cracked with a chisel, and the mass was lifted from its bed; two or three small translucent cysts were seen attached to the under surface of the bone; these had been confined to the ethmoid cells, which cavities were, I think, expanded distance between orbital plates measuring one inch and a half. The growth had not invaded either the orbit or the nasal fossæ.

Although placed precisely in the mesial line, its pressure effects had influenced principally the anterior and middle lobes of the left hemisphere; a large portion of the inferior surface of the anterior lobe was gone, and a considerable part of the inferior surface of the middle lobe had shared the same fate; the gray matter had entirely disappeared, and the white portion adjacent was diffluent and separated from the tumor by a quantity of loose conjunctive tissue having a considerable quantity of yellowish serum within its meshes.

On section the tumor presented a pinkish-gray color; it was of firm fibro-fleshy consistence, and, from naked-eye examination, I judged it to be a sarcomata.

A microscopic examination was made by Dr. Francis Delafield, and the growth was pronounced to be carcinoma of the dura mater. The accompanying note from the Doctor refers to its minute structure.

"The tumor is composed of a stroma and of cells. The stroma is composed of broad bands of fibrous tissue interlacing so as to leave long and oval spaces, some broad, some narrow. The amount of stroma varies in different parts of the tumor, but is everywhere well marked. The cells are contained in the spaces. They are large, pale, polygonal, mostly with a single nucleus. They are packed closely together in the spaces, in some places forming concentric nests. Small concretions of lime are found here and there among the cells."

There are two points of interest in this case to which I wish to draw the attention of the Society. Interference with the special senses occurred in the following order: The sense of smell was abolished twelve years ago, that of vision four years ago, and that of taste three or four months before death. At the autopsy we found the olfactory bulbs almost entirely destroyed, the anterior portion of the optic tracts and chiasm indistinguishable, the inferior division of the fifth apparently not involved. Could it be possible that the loss of smell, occurring twelve years ago, was occasioned by the presence of this growth; is not such a supposition at variance with our knowledge of the usual rate of development of such tumors?

The next point of interest is the fact that though situate in the median line, the pressure effects were mainly, if not entirely, developed upon the left hemisphere, the whole inferior portion of the anterior lobe was destroyed, and a considerable portion of the middle lobe. We know that lesions involving the anterior lobe, and that debatable spot, the left third frontal convolution, in a large majority of cases, have been associated with aphasia and right hemiplegia. The patient from whom this specimen was taken was certainly not at any time aphasic or hemiplegic. And I think the case adds one to the now numerous array of cases opposed to the proposition enunciated by

Broca, that the faculty of speech or intelligent language resides in the third left frontal convolution.

Dr. Thomson remarked that Dr. Briddon's case, being of slow growth, allowed the other portions of the brain to compensate for the loss of left third frontal convolution. He did not believe that it was an accepted theory that the faculty of speech resided exclusively in that locality, although it might be centralized there. It was only when that portion of the brain was suddenly destroyed that aphasia resulted.

Dr. Weir referred to a case of compound fracture of the skull, followed in the course of six weeks after trephining by a cerebral abscess and a loss of brain substance, involving not only the left third frontal convolution, but all the parts in the immediate neighborhood. In that case the patient could talk perfectly well.

Dr. Finnell presented an Indian scalp three years of age. It seemed to include all the tissues down to the bone. The hair was as perfectly intact, and was as firmly fixed as in a perfectly fresh scalp.

ANEURISM OF BASILAR ARTERY.

Dr. Loomis exhibited a specimen taken from an unmarried German, 29 years of age, who was admitted into Bellevue Hospital the first of last September. He was perfectly well for three or four years, until about two months before he sought relief, when he noticed a sensation of numbness on the left side of the face, and a loss of hearing of his left ear. He also noticed that the saliva drooled from the left corner of his mouth, and that he was unable to swallow food from the left side of his mouth, and was compelled to push it on the other side with his finger. At the time of admission his general condition was very good, and, aside from the symptoms already noticed, there was a loss of the sense of taste on the left side. Physical examination gave negative results. There was no paralysis of any parts of his body save those mentioned. On the 16th of September he was seized with vomiting, after which he found that he partially lost his power of walking, and within a few days after he lost his power of speech and died. The day previous to death bronchial rales appeared on auscultation.

At the autopsy all the thoracic organs were found healthy except the lower lobe of right lung, which was congested. The liver was slightly cirrhosed and contained a deep fibrous cicatrix, which was evidently of syphilitic origin. No other evidences of syphilis were apparent either before or after death.

On opening the cranium all the membranes were intensely congested. At the base of the brain was an aneurism about the size of a pigeon's egg, springing from the left basilar artery, which pressed upon the medulla and upon the pons. The other arteries at the base of the brain were in an atheromatous condition. Dr. L. stated that he had looked over the literature of aneurism of that locality, but had only succeeded in finding a similar one, and that was detailed in Reynolds' System of Medicine, vol. iii. The tumor contained red clots in layers on the inside of the sac. The diagnosis was not made before death.

The Society then went into executive session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Stated Meeting, December 4, 1871.

Dr. A. Jacobi, President, in the Chair.

The minutes of the Adjourned Anniversary Meeting, and of the Stated Meeting, of November 27th were read, and, after two unimportant amendments, adopted.

STANDING COMMITTEES.

The President announced his appointment of the following standing committees for the year, remarking that, as the reports on meteorology, to have any medical value, must be considered in connection with the prevalent diseases, he had, in order to facilitate this, made the members of the Meteorological Committee also members of the Committee on Diseases.

Committee on Library: Drs. Jerome C. Smith (Chairman), Charles A. Leale, and George W. Robinson.

Committee on Intelligence: Drs. Fred. A. Castle (Chairman), Lucius D. Bulkley, Chas. S. Bull, Benjamin Howard, Samuel Sexton, Herman Althof, Andrew H. Smith, Wm. R. Whitehead, E. Darwin Hudson, and P. Brynberg Porter.

Committee on Meteorology: Drs. D. H. Goodwillie (Chairman), Salvatore Caro, Chas. S. Wood, C. B. McQuesten, and Simeon N. Leo.

Committee on Diseases: Drs. Chas. P. Russell (Chairman), M. H. Henry, Daniel A. Leavitt, Leonard Weber, D. H. Goodwillie, Gustavus Langmann, Salvatore Caro, Chas. S. Wood, C. B. McQuesten, and Simeon N. Leo.

Committee on Registration: Drs. D. B. St. John Roosa (Chairman), C. R. Agnew, and Joseph Kammerer.

Committee on Finance: Drs. Joseph E. Janvrin (Chairman), Edward Bradley, and Horace P. Farnham.

PRESIDENT'S INAUGURAL ADDRESS.

The President then delivered his inaugural address, of which we are forced, by lack of space, to give but a brief abstract. It will speedily be published in pamphlet form. After a feeling allusion to the death of Dr. Bibbins and Dr. Elliot, the speaker referred to the large accession (seventy) to the membership of the Society during the year, as indicating the increasing recognition, by the profession, of the advantages of combined action; while the many foreign names in the list of new members showed its hearty realization of the universal brotherhood of science. History taught that these tendencies were developed by a profession *pari passu* with its emancipation from ignorance and superstition; and the same principles would finally prove themselves as true in the domain of politics as in that of science. He continued:

"Concerning our recent admissions I have another remark to offer. It is not a small satisfaction to me that, in this year of my presidency, one of the most urgent questions of the day should have been quietly and noiselessly answered. The admission of females into the ranks of the medical profession, or rather—as their obtaining the degree of M.D. is a matter belonging to chartering legislatures, and their obtaining a practice depends on the choice or prejudice of the public—into the existing medical societies, has been decided by you by a simple vote, not attended either by the hisses and clamors of excited young men in medical schools, or by the confusion and derogations of the meetings of a medical association. I think we can say that our action has finally settled a question the importance of which was recognized by everybody. The vote of the largest society of the kind in the Empire State, and I believe in the Union, will have the effect of soothing the passions and levelling prejudices in the circles of the army of medical men, forty thousand strong, in the United States, and of raising us in this respect to the standard of European countries. Even the conservative seat of learning, Edinburgh, has admitted women to medical studies. Paris has turned out a woman doctor of medicine, who will prove, I hope, none of the least ornaments of this Society, the profession of this city, and our common country. Russia can boast already of her

Kaschewarowa, and will within two years permit any well-educated and sufficiently-prepared woman to enter the halls of medical learning; and Switzerland, little but republican Switzerland, enjoys in its University of Zurich the presence of dozens of female medical students. I say "enjoys," for it has been a matter of public congratulation on the part of the professors of that institution that, since the admission of the females, not only has the university gained a number of hard-working and successful students, but that, besides, the general bearing of the students of the stronger sex has been more quiet, sedate, moral, and studious.

"The question whether females will be admitted to the study of medicine in the existing medical schools in our country, will be solved in time. It appears improbable, for several reasons, for the present. The standard of many of the young men entering upon the study of medicine, as far as preparatory studies are concerned, is so little elevated, that the schools will not lack sufficient numbers of students; for it is true that ours is one of the liberal professions in the Union which do not consider the previous acquisition of a classical or literary education a *conditio sine qua non*. And further, as long as new institutions, worthy and unworthy ones, male and female, are daily chartered upon the recommendation of lay members of State legislatures, the increase in number of special colleges for females can be continued *ad infinitum*. Thus it may happen that, for some time to come, this question of admitting females to our medical schools for male students will not be very eagerly ventilated, as its practical necessity may, to many of us, not be very obvious. Still let it not be forgotten in the history of this Medical Society of the County of New York, that we have opened our doors to worthy members of the medical profession, male or female, white or colored, and thus granted reality to the gospel of American citizenship, the Declaration of Independence, according to which we are all free and equal. Let it not be forgotten, either, that we, in our circle, have generalized and idealized the peculiarly American proverb, 'Help yourself.' Emancipation, both of color and sex, means nothing else but to universalize the postulation of helping one's self. The future constitution of an ideal human society will be such that every member will take such a place, fill such a position, as are both adapted to his or her taste, and adequate to his faculties and services. The choice of a calling will depend on the former, the recognition by society, position, on the latter. That is the meaning of 'help yourself,' which never excludes that everybody else should also help himself, nor renders the helping of each other impossible. . . . . I wish that we, in our political and social system, and in the institutions of our private and scientific circles, should forever bear in mind that we have always been the banner-bearers of universal liberty; and that, if the public opinion of Europe, greatly influenced by a monarchical and anti-republican press and office-holders, has frequently thrown the 'help yourself' into our faces as a reproof, we mean and meant to help ourselves and each other, and them also! We need not sacrifice truth and modesty to spread-eagleism, when we point to the facts of our sanitary commission, our Chicago, or to the hungry of their Ireland, or the wounded and starving of their Germany and France. And from this general point of viewing all questions of great importance concerning the requirements of progressive development, we have, all of us, co-operated in solving the woman question in our department, no matter whether we have all been equally enthusiastic in deciding it, or whether we have simply followed the dictates of our longing for justice or equity, or resolved upon giving every member of human society a chance to develop his or her faculties, on their own responsibility as to failure or success."

The papers presented and discussed during the year were of a high order, and creditable both to their authors and to the Society. The several meetings had been occupied as follows:

November Meeting, 1870.—Paper by the PRESIDENT, on "Craniotabes," and general introductory remarks. Cases of, and remarks on, "Blepharoplasty," by Dr. KNAPP.

December Meeting.—Paper by Dr. FORDYCE BAKER, on "Blood-letting as a Therapeutic Resource in Obstetric Medicine."

January Meeting, 1871.—Paper by Dr. H. KNAPP, on "Formation of Bone in the Eye."

February Meeting.—Paper by the Vice-President, Dr. AUSTIN FLINT, on "The Pathological Relations of the Gastric and Intestinal Tubules."

March Meeting.—Paper by Dr. J. LEWIS SMITH, on "Scrofula."

April Meeting.—Paper by Dr. LEONARD WEBER, on "Abscess of the Appendix Vermiformis."

May Meeting.—Paper by Dr. H. B. SANDS, "On the Use of the Plaster-of-Paris Bandage, in the Treatment of Simple Fracture, especially Fracture of the Femur." "Case of Abcess of the Appendix Vermiformis," by Dr. ERNST KRACKOWIZER.

June Meeting.—Paper by Dr. F. N. OTIS, on "Syphilitic Infection, with Special Reference to the Channels through which the System becomes contaminated, and to the so-called Incubation Period of the Disease."

September Meeting.—Nomination of Officers.

The task of advancing medical science, of stimulating strictly scientific researches, which our medical schools could not fulfil, must, with us, necessarily fall upon the medical societies. From this point of view, the Society had, by approving of and authorizing a prize on a strictly scientific subject, which would require researches of a laborious and partially novel kind, begun a new era in the efficiency of medical societies, and proved her earnest appreciation of her position in relation to medical science.

Having referred to the duties of medical societies, to the members of the profession, and to science, the speaker had intended to discuss, in a comprehensive way, their duties, and those of the profession as a whole, to the public. But there was one subject of such practical and immediate urgency that the consideration of the other public relations of medicine must be postponed to it. This was the matter of *Infant Asylums*, upon which Dr. Jacobi now read an extended essay, taking the Nursery and Child's Hospital as a fair example of their working, and showing by statistics the terrible mortality that seems inevitably to cling to them. He earnestly advocated the abolition of all such institutions, and the adoption of the plan of "farming out" infants, which had proved so satisfactory when carried out under proper supervision.

As the next Stated Meeting would regularly fall on Christmas, the by-law fixing its date was suspended, and the meeting adjourned, subject to the call of the President and Secretary.

DEATH FROM BICHLORIDE OF METHYLENE.—A married woman, forty-four years of age, who was about to undergo an operation for cancer of the breast, at Radcliffe Infirmary, Oxford, England, expired suddenly while under the influence of bichloride of methylene.—*Med. Times and Gazette.*

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from December 5th, 1871, to December 18th, 1871, inclusive.

Frantz, J. H., Surgeon.—By S. O. 463, War Department, A. G. O., Dec. 7, 1871, relieved from duty in Department of the Platte, to proceed to Baltimore, Md., and on arrival, report by letter to the Surgeon-General.

Gibson, Jos. R., Assistant Surgeon.—By S. O. 252, Department of the South, Dec. 2, 1871, assigned to duty at Yorkville, S. C.

Smart, Chas., Assistant Surgeon.—By S. O. 269, Department of the East, Dec. 14, 1871, granted leave of absence for thirty days, on Surgeon's Certificate of Disability.

Cronkhite, H. M., Assistant Surgeon.—By S. O. 463, A. G. O., C. S., to report to the Commanding General Department of the South, for assignment to duty.

Heizmann, C. L., Assistant Surgeon.—By S. O. 211, Department of the Platte, Dec. 4, 1871, granted thirty days' leave of absence.

Monroe, F. LeB., Assistant Surgeon.—By S. O. 219, Deparment of the Platte, Dec. 14, 1871, assigned to duty as Post Surgeon at Fort D. A. Russell, Wyoming Territory, relieving Surgeon J. H. Frantz, U. S. A.

Powell, R., Assistant Surgeon.—By S. O. 463, A. G. O., C. S., to report to the Commanding Officer, Department of the Gulf, for assignment to duty.

Kimball, Jas. B., Assistant Surgeon.—By S. O. 464, War Department, A. G. O., Dec. 8, 1871, leave of absence extended sixty days.

Wilson, Wm. J., Assistant Surgeon.—By S. O., 463, A. G. O., C. S., to report to the Commanding General, Department of the Missouri, for assigment to duty.

Medical Items and News.

Small-Pox still continues to exist in this city, and shows no signs of decreasing. The same may be said of Brooklyn and Philadelphia, in which latter the disease prevails to an alarming extent, the mortality being fearful and unprecedented.

Concerning Contagious Diseases.—The following will be of interest to the profession, at this time:

Health Department, City of New York,
Bureau of Sanitary Inspection, Dec. 12, 1871.

To the Board of Health—Gentlemen:

Being in the daily receipt of letters from the medical profession of this city, and from Health Authorities of other cities of the United States, requesting information respecting the details of the methods adopted by this Department in the sanitary care of contagious diseases. I would respectfully submit the following for general information, as having been approved by the Sanitary Committee having supervision of this Bureau.

How information is received of the presence of Contagious Diseases.

Sections 122 and 123 of the Sanitary Code require that such information be furnished promptly to this Bureau, as follows:—

Section 122. "That every physician shall report to the Bureau of Sanitary Inspection, in writing, every person having a contagious disease (and the state of his or her disease, and his or her place of dwelling, and name, if known), which such physician has prescribed for, or attended for the first time, since having such a contagious disease, during any part of the preceding twenty-four hours; but not more than two reports shall be required in one week concerning the same person; but every attending or practising physician thereat, must, at his peril, see that such report is or has been made by some attending physician."

Section 123. "That every keeper of any boarding-house or lodging-house, and every inn-keeper and hotel-keeper, shall, within twenty-four hours, report, in writing, to the Bureau of Sanitary Inspection the same particulars in the last section required of any physician concerning any person being at any of the aforesaid houses or hotels, and attacked with any contagious disease."

To facilitate the prompt reporting of such cases, every physician is supplied, free of expense, with the following blank form, which, when properly filled out, can be immediately forwarded by mail to this Bureau.

New York.....187

Report of Contagious Disease.

To Dr. Moreau Morris,
City Sanitary Inspector, No. 301 Mott St., N. Y.

Name of Patient.....Age.....
Residence.....Disease.....
Condition of Premises.....
.....
.....M.D.
Residence.....

Sanitary Duties, how performed.

Immediately upon receipt of this information, it is recorded in a blotter kept for this special accord; the Health Inspector, in whose district the case may be, is at once notified by telegraph of the fact, and it then becomes his duty to proceed forthwith to the place designated, investigate and report to this Bureau his diagnosis and whatever may be necessary to be done in respect thereto. By these means prompt official information is furnished to the head of the Bureau in each case.

The Board of Health being empowered by law (Sec. 16, Chapter 74, Laws of 1866) "to remove or cause to be removed to a proper place within said district, to be by them designated, any person sick with small-pox or other contagious disease," it becomes discretionary with it to decide, whether it may be necessary to cause such removal or not. This question remains to be decided in the discretion of the City Sanitary Inspector by authority of the Board, and each case is so decided upon, according to the degree of isolation that may be enforced, with due regard to the spread of the infection and the protection of the public health, the latter consideration being paramount to all others. Having no responsibility as to the medical treatment of individual cases, the Health Inspector's duties are confined simply to the sanitary care necessary to protect the public from the further spread of the infection.

If, in the judgment of the Health Inspector, it is necessary to remove the person sick to an isolated hospital, he so reports to the City Sanitary Inspector, who then immediately dispatches the ambulance and causes the removal of the patient. The removal is at once followed by disinfection of everything upon the premises that may convey infection, with fumigation of the apartment occupied; the infected bed being generally burned.

If the disease be small-pox, an Assistant Health In-

spector is now sent to vaccinate the inmates of the house, and of all that will consent to the same in every house upon that block, and the face of the block opposite, thus affording protection probably to nearly all that may have been exposed directly.

Where cases are allowed to remain in their own homes, where proper isolation can be secured, the duty of the Health Inspector requires him to give such, directions and instructions with special reference to the the sanitary measures to be continually enforced during the progress of the case. For convenience, and to secure methodical application of the proper and necessary means for the care of all sources of contagion, the following card of Regulations is required to be placed in the hands of the attendant upon the case:—

Sanitary Regulations against Small-pox, Scarlatina, and Measles.

Every case must be reported to the City Sanitary Inspector upon its first recognized appearance.

Care of Patients.—The patient should be placed in a separate room, and no person, except the physician, nurse, or mother, allowed to enter the room, or to touch the clothing or bedding used in the sick-room, until they have been thoroughly disinfected.

Infected Articles.—All clothing, bedding, or other articles, not absolutely necessary for the use of the patient, should be removed from the sick-room. Articles used about the patient, such as sheets, pillow-cases, blankets, or clothes, must not be removed from the sick-room until they have been disinfected, by placing them in a tub with the following disinfecting fluid: 8 ounces of sulphate of zinc, 1 ounce of carbolic acid, and 3 gallons of water.

They should be soaked in this fluid for at least one hour, and then placed in boiling water for washing. A piece of muslin, one foot square, should be dipped in the same solution and suspended in the sick-room constantly, and the same should be done in the hall-way adjoining the sick-room.

Feather-beds and pillows, hair mattresses, and flannels or woollen goods, require fumigation, and should not be removed from the sick-room until after this has been done. Whenever the patient is removed from the sick-room notify the Bureau of Sanitary Inspection, when the disinfecting corps will, as soon as possible thereafter, perform the work of fumigation.

All vessels used for receiving the discharges of patients should have some of the same disinfecting fluid constantly therein, and immediately after use by the patient be emptied and cleansed with boiling water. Water-closets and privies should also be disinfected daily with the same fluid, or a solution of chloride of iron, one pound to a gallon of water, adding one or two ounces of carbolic acid.

All straw-beds should be burned, but must not be removed from the sick-room without a permit from this department. They will be removed by the disinfecting corps.

It is advised not to use handkerchiefs about the patient, but rather soft rags for cleaning the nostrils and mouth, which should be immediately thereafter burned.

The ceilings and side-walls of the sick-room, after removal of patient, should be thoroughly cleaned and lime-washed, and the wood-work and floor thoroughly scrubbed with soap and water.

By direction of the Health Department, etc.

With the medical treatment of the case the Health Inspector has no concern, and is specially enjoined from interfering or even making any remark with respect thereto, that matter being left entirely to the patient's proper medical attendant; the Inspector's duties being specially those of the sanitary care, and enforcement of such sanitary measures as are directed. To secure the observance of such measures, it becomes the duty of the Health Inspector to visit the premises and patient from time to time during the progress of the disease, and, when the patient finally leaves the room, to secure the proper fumigation and cleansing of the same.

In the performance of this duty the attending physician should always be advised of the necessary measures to be applied, and his co-operation secured, in their enforcement, as he naturally has the confidence and good-will both of the patient and family.

As a convincing argument of the value of vaccination, it may be well to give the unanimous opinion and expression of the medical officers of this department:—

That it is not only a safe but certain preventive of small-pox, when properly, carefully, and judiciously performed, and as a proof of its protective value I can state that, among over 100,000 persons vaccinated by the Health Inspectors of this bureau during the past year, there has not yet been found one who has contracted small-pox, or its modified form, who had been successfully vaccinated previous to becoming infected, while numbers have fallen victims to this disease who refused to allow the inspectors to vaccinate them at the time of exposure. Very many such instances have been acknowledged to the inspectors at the time of their first visit to the cases. I am fully convinced that this extraordinary success is due in a large measure to the fact that vaccine-virus, while in a fresh and active condition only, has been used. No crust or scab has ever been used by us.

Our practice has been, and is, to use only such virus as has been taken from a well-selected, healthy child the afternoon previous, rejecting that which had become seventy-two hours old. A supply of bovine virus, direct from the animal, was used to a limited extent during the past summer, which gave no better results than that from children's arms, and as its propagation was attended with much difficulty, and a sufficient supply could not be maintained for our large demand, except at a great expense, it was abandoned.

In the use of child-hood-lymph, with the results as proved by our statistics of successful vaccination and re-vaccination, certainly no man should cavil. The absolute protection offered so large a number of persons, of whom by far a larger majority had been exposed either directly or indirectly to this fearful disease, should go far to convince the most sceptical of its inestimable value.

To the carelessness and neglect of parents and physicians, and the opposition of the misinformed, uninformed, and injudicious, may be attributed, in a large measure, the success of an epidemic form of this loathsome disease.

Moreau Morris, M.D.,
City Sanitary Inspector.

New Publications.

Books Received.

Lectures on the Clinical Uses of Electricity, delivered in University College Hospital, London. By J. Russell Reynolds, M.D., F.R.S., Prof. of Principle and Practice of Medicine in University. Philadelphia: Lindsay & Blakiston. 1870.

Original Communications.

OBSERVATIONS ON THE OPERATION FOR HARE-LIP, WITH CASES AND ILLUSTRATIONS.

By GURDON BUCK, M.D.

READ AT A MEETING OF THE MEDICAL LIBRARY AND JOURNAL ASSOCIATION, NOV. 3, 1871.

Success in the treatment of hare-lip depends so essentially upon the proper execution of the several details of which the operation consists—such as preparing the parts for adjustment to each other, the choice of sutures, the manner of inserting them, and their proper subsequent management till the process of healing is completed, that whatever expedients are best adapted to attain these important ends are entitled to preference. The author, having had considerable experience in this operation, proposes to describe in detail the method which he prefers, and which has afforded him the most satisfactory results; and also to illustrate the subject by cases which have recently occurred in his hospital practice.

1. The management of the patient.

If a child, the arms should be brought down to the sides of the body and secured by a folded napkin, passed round them and fastened with pins. The head should be held steadily in position between the hands of an assistant. If the patient is an infant in the arms, an anæsthetic may be dispensed with. Its continued administration interrupts and protracts the operation. Such children suffer but little mentally, and less physically than older patients, as may be inferred from the fact that often they will cease crying in the intervals between the incisions and sutures, and they sooner become pacified after the operation is finished. In the administration of an anæsthetic to older children, the effect may be best kept up by employing a small sponge fastened to a holder, instead of the large, hollow, cone-shaped sponge with which the inhalation is ordinarily commenced. It interferes less with the operative proceedings.

2. Sutures and their management.

Three kinds of sutures may be used.

a. The interrupted thread suture, for which a glover's trocar-pointed needle is preferable to any other. They may be had of all sizes at the thread-and-needle stores. To prevent inversion of the edges of a wound, which is a frequent cause of the failure of primary union, the needle should be passed through the skin, nearer the edge of the wound on its outer than on its inner surface, which is the reverse of what is usually done. Thus inserted, the suture, on being tightened, tends to evert the edges of the wound and confront them more perfectly. The sutures should also be inserted as close together as is necessary to secure the most exact coaptation of the edges. Their multiplicity is not objectionable, inasmuch as at the expiration of twenty-four hours, when agglutination of the edges will have taken place, their number may be reduced by removing the alternate ones. Metallic sutures, in the judgment of the author, possess no advantage over thread; on the contrary, they are not as easily withdrawn, and their presence is just as liable to cause ulceration in their tracks as in the case of thread sutures. Both will remain without producing any harm as long as they are needed, provided the edges of the wound, which they are designed to maintain in contact, have previously been liberated so as to be relieved of all traction.

b. Pin suture, or figure-of-eight suture.

The insertion of the pin is easily and accurately performed by the aid of an instrument devised by the author, and first described in the Med. Record of July 1st, 1869, under the name of Suture Pin Conductor. It consists of a needle two inches and a half long, of the thickness of an ordinary knitting-needle, slightly curved toward the point and fixed in a handle. From its point toward the handle it grows smaller round for a distance of half an inch, which facilitates its passage through the skin. Its extremity is bevelled off to a sharp point on its concave side, and is perforated lengthwise for a short distance on its bevelled face, as in the point of a hypodermic syringe. The mode of using it is as follows: The edges of the wound to be approximated having been traversed by the conductor, guided by one hand, a pin held between the thumb and fingers of the other hand is engaged by its point in the perforated hole at the end of the conductor, and held steadily in place while the conductor is withdrawn. The pin is thus made to follow it with perfect certainty. The great advantage of the instrument is the precision with which the pin is inserted, and the facility with which fresh pins can be substituted for old ones, which have begun to set up suppuration along their tracks, without disturbing the newly-formed adhesions. To guard against suppuration along the track of the pin and upon the surface under the yarn, the yarn itself, after being softened with warm water, should be removed at the end of forty-eight hours, and sometimes of twenty-four hours, so as to allow the constricted surface to recover itself, and then fresh yarn should be applied. This change should be repeated daily afterward till the removal of the pin, which should be done not later than on the fourth day. If the support of the pin cannot yet be dispensed with on the fourth day, it is better to insert a fresh pin near by than to leave the old one in longer than four days. The surface underlying the yarn may also, when necessary, be protected by a patch of three or four thicknesses of adhesive plaster, stuck together and shaped so as to lie upon the skin between the points of entrance and emergence of the pin, and thus separate the yarn from contact with the skin.

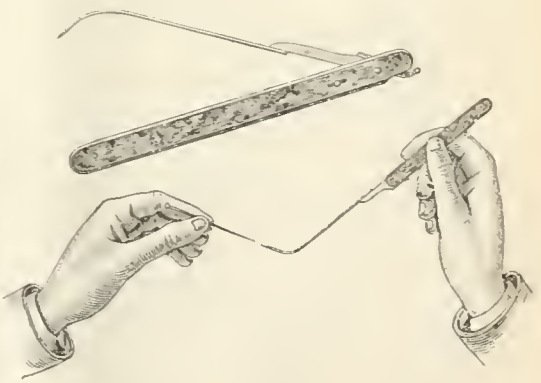

Fig. 1.

c. The beaded wire clamp suture,

Is constituted as follows: A darning-needle, two inches or more in length, is threaded with a soft silver wire, knotted at its distal end after having been previously strung with a smooth, round glass bead and a perforated leaden shot. The needle is made to traverse the skin at a distance of one inch or more from the opposite edges of the wound. A second bead and shot

are then strung upon the other end of the wire. While the edges of the wound are crowded toward each other and held in contact, the wire is drawn upon and the second bead and shot are slid down against the skin and permanently fastened in place by mashing the second shot upon the wire with pliers. The opposite edges of the wound thus held securely in contact and relieved of all strain, may be accurately adjusted to each other by any requisite number of thread sutures. This beaded suture may remain undisturbed eight or ten days, and produces only a superficial ulceration under the beads, which readily heals after their removal and leaves no conspicuous scar. When primary union has taken place only partially, or has failed altogether, this suture is the best reliance for supporting and holding in contact the opposite edges of a wound; while with the aid of adhesive plaster and supplementary thread sutures the adjustment is maintained during the slower process of union by granulation.

Fig. 2.

NOTE. — Punchings of harness leather, disk-shaped, such as may be had at any saddler's shop, are a good substitute for shot, and are easily perforated with a glover's trocar needle. Fig. 2 represents the constituent parts of a beaded wire clamp suture. *a*. The knotted end of the wire, threaded with a leather disc next to the knot, and a glass bead beyond the disc. *b*. The second glass bead fastened in place by three or four turns of the wire wound around a lucifer-match, which is then cut short with scissors. *c*. A trocar-pointed needle made for the purpose; for which, however, an ordinary darning-needle is a good substitute. An advantage of this mode of arranging the beaded suture is, that it can be tightened or loosened when necessary.

3. Preparation of the parts for adjustment to each other.

A needle, armed with coarse thread, is passed through the two angles of the lip on either side of the cleft, far enough from the border to be out of the way of the subsequent incisions. The ends of the threads tied together form loops with which to hold the parts on the stretch when required. Each half of the lip being put upon the stretch by means of its loop, and drawn away from the jaw, an incision is made along the line of junction between the jaw and the inner surface of the lip, and carried outward as far as the molar teeth. The separation is also continued upward, in contact with the periosteum, toward the cheek. This being done on both sides, permits the two halves of the lip to be approximated and brought into contact without any strain upon the sutures which are to hold them together. The next step is to pare the opposite edges of the cleft. Each half of the lip is again put upon the stretch by means of its loop, while the lip is transfixed near its angle, and an incision carried upward skirting the border of the cleft, and extending somewhat into the nostril. The strips thus detached from both borders of the cleft, but left attached at the angles, are brought down, with their fresh-cut surfaces facing each other, and both are transfixed by a threaded needle. The ends of the thread are tied together, and form a loop with which the strips being put upon the stretch, the fresh-cut edges of the cleft above are held evenly confronting each other, while sutures are inserted to secure their adjustment. During this adjustment an assistant should crowd forward the cheeks toward the median line. Two pin sutures, one below near the vermilion border, and one above near the columna nasi, are to be inserted and wound with cotton yarn. Between the pin sutures three or four thread sutures will serve to perfect the adjustment of the edges. The strips still remaining attached at the angles where the two halves of the lip meet, are to be severed by an oblique section, so that at their junction they will form a projection standing out beyond the line of the lip border. Three fine sutures should secure this adjustment at the border. By this arrangement the subsequent formation of a notch, which so often mars the result of this operation, will often be prevented. In making the sections just described, a Beer's cornea-knife is very useful on account of the facility with which it transfixes the lip, and the precision with which the incisions can be made. In illustration of the views just advanced, the following cases are submitted:

CASE I.—Simple congenital hare-lip. John Black, æt. 12, resident of Piermont, on the Hudson, admitted into St. Luke's Hospital, Jan. 18, 1871. The cleft, involving the right half of the lip, divides it vertically, and extends as a shallow furrow upward along the floor of the right nostril. The right middle upper incisor tooth occupies the cleft, and stands forward conspicuously in advance of its fellows, probably in consequence of lack of support from the absence of the lip. (See Fig. 3.)

Fig. 3.

Operation.—Performed Jan. 24th, after etherization according to the method above described. A moderate degree of inflammatory tumefaction followed the operation. At the end of forty-eight hours the yarn was changed on the pins. On the third day the upper pin was removed, and the yarn changed on the lower pin. Applied two strips of adhesive plaster across the cheeks to support the parts. On the fourth day removed the lower pin, and the remaining thread sutures. Continued the adhesive straps, which were renewed daily for a week after the operation, when the healing was complete. A very slight notch remains at the lip border

where the two halves united. Patient returned home Feb. 10. Fig. 4 shows the result.

Fig. 4.

A Hare-lip Family.—Mrs. Molinieri and her three children, all girls, natives of Genoa, Italy, were admitted into St. Luke's Hospital, Jan. 10, 1871.

Mrs. M. herself bears the marks of a successful operation, performed in childhood, for hare-lip. She has a brother and sister with hare-lip; and besides her three living children she has had four others, all of whom died in very early infancy; three of them had hare-lip, and the fourth only was a perfect child.

Case II.—Jacinta, the eldest, æt. 7, has a single cleft, involving the left half of the lip and extending upward into the left nostril. The cleft also extends backward through the dental arch and bony and soft palates. The portion of the dental arch on the right side of the cleft projects forward at its anterior terminus in advance of the natural curve, and being uncovered by the lip, presents a conspicuous feature in the child's disfigurement. The ala of the left nostril is drawn outward toward the cheek, thereby enlarging considerably its orifice.

Fig. 5.

A mild attack of measles developed itself soon after admission, and made it necessary to postpone the operation to the 31st January, when it was performed with the aid of etherization, as was done in the case of her two younger sisters.

Operation.—After liberating the parts on either side of the cleft in the way above described, I proceeded to break down and reduce into line the projecting portion of the dental arch with Mr. Butchers' bone-pliers—an instrument devised expressly for the purpose. It consists of two jaws of unequal length, with their confronting surfaces flattened and roughened. The shorter blade is blunt at its extremity; the longer one is bent flatwise to a right angle at half an inch from its extremity, and looks toward its fellow with a square, blunt cutting edge at its extremity.

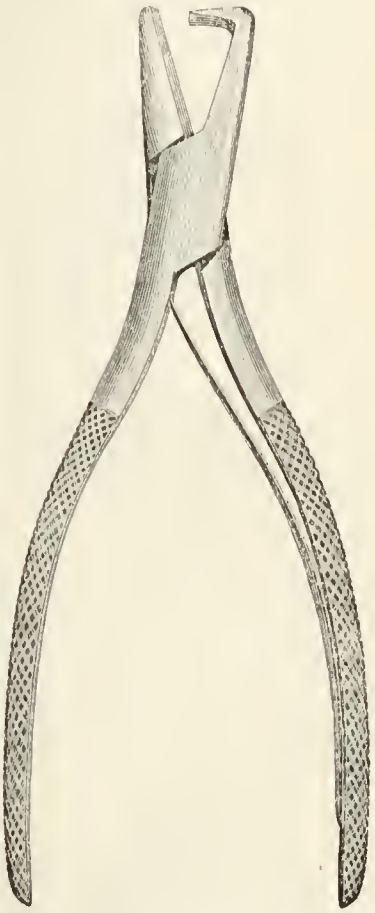

Fig. 6.

The bony projection was seized between the jaws of the pliers, with its bent jaw applied to the anterior surface high up toward the nostril. The bent jaw was sunken in the bone, and weakened it so that on bearing down with the pliers I fractured the bone and reduced the projection into line. The integrity of the dental arch was thus restored, and the cleft that had divided it was bridged over. Where the opposite surfaces of the cleft came in contact, they were pared, and subsequently coalesced permanently. This restoration of the bony arch also facilitated the adjustment of the two halves of the lip to each other, and afforded them a good support. The closure of the cleft of the lip was completed according to the method described above. On removing the yarn from the pins at the end of two days, the pin tracks were found already to have sup-

purated, and the confronted edges had failed to adhere, except at the vermilion border, where, fortunately, adhesion was secured. It now became important to hold the opposite edges of the wound quietly in contact, while healing by the granulating process should take place. This was accomplished very satisfactorily by a beaded wire clamp suture inserted across the upper part of the lip, and at a distance of nearly one inch from the edges of the wound on either side. This afforded a constant support, while the adjustment of the edges of the wound to each other was maintained by strips of adhesive plaster renewed daily. The granulation growth was promoted by the application of solid nitrate of silver. The beaded suture was removed at the end of the fifth day, and the adhesive plasters continued for three weeks after the operation, when the healing was complete. No suppuration or exfoliation of bone fol-

Fig. 7.

lowed the violence done to the jaw. A tooth which was implanted in the projecting portion of the dental arch became loose and was extracted. The dental arch became consolidated and regained its natural curve. A plug of soft sponge was worn in the left nostril to counteract a disposition at its outer margin to fall in after the closure of the cleft of the lip. There was no notch remaining at the lip border where the two halves joined. A great improvement in the child's appearance was the result, as shown by Fig. 7.

Fig. 8.

Case III.—Marie Anne, the second child, æt. 4 has a simple vertical cleft involving the left half of the upper lip, from the orifice of the left nostril through the vermilion border, unaccompanied by any complication. Fig. 8.

Fig. 9.

Operation.—Jan. 21st. By the same method as in the preceding cases. Primary union followed, and on the fourth day after the operation the last suture was re-

Fig. 10.

moved. Adhesive plasters, however, were continued for a few days longer, to support the parts and relieve the newly-formed adhesions of all strain upon them. Fig. 9 shows the result without any remaining notch at the lip border.

Case IV.—Rose, the infant, æt. 12 months, has a double cleft of the upper lip, without any complication. A central, tongue-shaped portion of lip intervenes between the clefts, which terminate on either side above, at the orifice of the nostrils. Fig. 10.

Operation.—Jan. 21st. The central portion of lip was prepared by paring the edges and giving it an angular shape, so as to adapt it for insertion between the lateral halves of the lip. These were prepared for adjustment to each other in the same manner as was employed in the preceding cases; and the adjustment of the three portions to each other was secured by traversing the three with the upper pin suture. Some difficulty was encountered in reducing the central piece to the same level as the lateral pieces, and it was not entirely overcome. Primary union failed to take place, as in Case No. II., except at the vermilion border, and it became necessary to support the edges of the wound in contact while union by granulation should take place. This was done by the careful application of adhesive plaster, which was renewed daily till the twelfth day after the operation, when healing was complete. A slight elevation of the central piece of lip still remained, which time, however, would be likely to diminish. Fig. 11 shows in this case, as in the other sisters, no remaining notch at the lip border.

Fig. 11.

The mother, with her three children, returned to their home, March 4th, rejoicing in the result of their sojourn at the Hospital.

No. 46 West 29th Street.

THE INFLUENCE OF A DEFICIENT SUPPLY OF CHLORIDE OF SODIUM UPON THE RISE AND PROGRESS OF CHOLERA.

By S. WATERMAN, M.D.,

NEW YORK.

The proposition advanced in my paper before the Academy of Medicine, October 5th, "that the presence of sodium in the air in sufficient quantity is absolutely necessary to life in its many and different forms and conditions; that its antiseptic properties are especially adapted to prevent contamination of air, earth, and water; and that its deficient supply is probably connected with the rise and progress of endemic contagious diseases, such as cholera, typhus, and others," is questioned in your December number (p. 444), by my learned friend Dr. Peters.

He states that cholera has been conveyed in a great number of instances across the sodium-salt ocean; that it has broken out in mid-ocean, and has raged in seaports where the air is loaded and impregnated with the soda-muriate.

To this I deem it necessary to respond, that Dr. Peters finds fault with my conclusions, but leaves my premises uncontradicted. It would be difficult, I think, for any one to deny that sodium in the air in sufficient quantity is absolutely necessary to life in its manifold forms and conditions; nay, it is even very probable, as Prof. Roscoe states in his work on spectral analysis, p. 69, "that these minute particles serve to supply the smaller organized bodies with the salts which larger animals and plants obtain from the ground. If, as is scarcely doubtful at the present time, the explanation of the spread of contagious disease is to be sought for in some peculiar contact-action, it is possible that the presence of so antiseptic a substance as chloride-sodium, even in almost infinitely small quantities, may not be without influence upon such occurrences in the atmosphere."

Dr. Peters also does not deny that the sodium-chloride possesses great antiseptic properties, by reason of which contamination of air, earth, and water is prevented. Now, it stands to reason that a deficient supply of this antiseptic agent must favor conditions favorable to the development of such contamination, and consequent disease. I think this proposition is logical. That the supply of sodium in the air is subject to daily oscillations is proved by spectroscopic observations, just as the supply of oxygen varies in the animal economy, and is never constant; yet, under normal circumstances, the quantity oscillates only within narrow limits. So also, so long as the supply of the sodium-salt oscillates within defined limits, no perceptible disturbance in the life and health of the animal economy is experienced. But a deficient supply of this antiseptic element for any length of time must be detrimental to organic life, and favor contaminations of air, earth, and water.

Granted, then, that cholera has been conveyed across the sodium-salt ocean. It is most probable that when this disease is once fully developed, the presence of the sodium-salt in the air in sufficient quantity may modify its violence; but we have not claimed that it will prevent its development. Whenever cholera has broken out in mid-ocean, the germ of the disease has been taken on board at the ship's point of departure. Its development in such cases was most undoubtedly favored by crowded steerage, tainted water, tainted food, want of cleanliness and proper ventilation. I deny that true cholera has ever absolutely originated as a spontaneous disease in mid-ocean. So also as regards the statement that cholera often rages in sea-ports surrounded with an atmosphere of sodium. No locality is more favorable to the germination of the cholera fungus, or whatever that germ may be, than sea-ports. It finds there its most favorite soil, provided there is, by the short-sightedness and neglect of man, a crowded population, abundance of decaying animal and vegetable matter, narrow, filthy streets, tainted water, obstructed drainage, foul air, want of cleanliness, want of proper food, intemperance, crime of all shades and forms, and in addition, want of intelligent sanitary measures. In vain does Nature pour out its antiseptic spray to protect the lives of improvident man; the

reeking foul atmosphere renders the benign influence of the sodium-chloride almost nugatory. When to conditions thus favorable to the development of cholera the supply of the soda-spray becomes deficient from some cause or other, can it be denied that the disease in question will grow in virulency and become boundless in its destructive force?

Dr. Peters further states that cholera has frequently prevailed along the whole Russian or north coast of the Black Sea, where the so-called salt-limous abound, and sodium-chloride is stored in huge stacks of hundreds of thousands of pounds. No amount of sodium-chloride, stored in one particular locality, is capable of preventing the introduction of cholera, for the simple reason that this salt, in order to reach the circulation, must be in a state of minute division, such only as can be obtained by evaporation from a surface covering two-thirds of our globe, and by the action of storms and winds over its surface. The thoughtful physicist will at once recognize that these fifty thousand Russian cartmen, with their million of oxen and a quarter of a million of carts, may become excellent agents to carry along the cholera on the highway of commerce, in spite of their loads of salt.

The Russian cartmen are none of the cleanest; they subsist on inferior food, are fond of alcoholic drink, in which they liberally indulge, and on their long journey they and their animals are exposed to exhausting influences. *But yet, true cholera has never originated in these salt-limous.* Whenever the cholera reached these regions, it was in the line of its migration, and had ere this obtained its characteristic destructiveness, which could not be arrested by the tons of stored-up salts of which the air may have been defectively supplied. On the contrary, the mixed crowd of men and beasts, promiscuously thrown together under the circumstances above enumerated, was well calculated to give the disease a high degree of virulence. In addition to this, it must not be forgotten that this vast deposit of salt in these Russian salt-limous results from the evaporation of sea-water in swampy grounds, favoring the development of malaria and mephitic gases during the hot months of June and July, just as our sea-marshes do along the Atlantic coast, where, in spite of the modifying antiseptic influences of the sodium spray, intermittent fevers abound.

It is to be regretted that in 1817, when the cholera first appeared in Jessore, not far from Calcutta, after an uncommonly long season of rain, spectroscopic analysis was unknown, and observations were not instituted registering the daily supply of sodium in the air. Such observations alone are destined to offer a satisfactory solution to my proposition, which, notwithstanding the formidable array of figures presented by my learned friend, I shall consider unshaken and not disproved.

DISEASE OF THE SUPRA-RENAL CAPSULES (ADDISON'S DISEASE).

By A. D. ROCKWELL, M.D.,

NEW YORK.

Some two years since I presented, for the inspection of the members of the Medical Library and Journal Association, what seemed to be a well-marked case of disease of the supra-renal capsules.

At this time the patient had been treated by me some two months, and under the influence of general faradization and galvanization of the sympathetic, his strength had returned in such a remarkable degree, that grave doubts were expressed in regard to the correctness of the diagnosis. Within the past month, post-mortem examination has confirmed this diagnosis, and although at the time the case was briefly alluded to in another place, I think it worthy of further remark, not only as additional evidence that certain organic changes in the capsule of the kidney, and peculiar symptoms to be described, are directly related to each other as cause and effect, but as a conclusive illustration of the somewhat remarkable constitutional tonic properties of general electrization.

The patient, a man aged 45, was referred to me by Dr. H. H. Gregory, of this city, as a fit case for some form of electrical treatment, since it had resisted persistently all ordinary tonic medication. The history of the case is briefly as follows: The patient had enjoyed all his life most excellent health until Nov., 1867, when he observed slight symptoms of exhaustion, a loss of appetite, and some evidence of anæmia.

His condition rapidly grew worse, and through the month of January, when he first detected a little discoloration of the face and hands, he was unable to leave his bed. He improved somewhat during the spring, and was able to engage in light labor. In August, 1868, he suddenly relapsed into a state of utter exhaustion; his skin became several shades darker, and his general appearance was that of an ordinary mulatto.

Almost every function of the body seemed to suffer derangement, and especially the offices of secretion. The bowels became distressingly constipated, never moving except by artificial means. Sleep was fitful and unrefreshing.

His mouth and throat were excessively dry and parched; the skin was shrivelled and devoid of moisture, while the finger-nails were so brittle as to break rather than bend. The left arm was so stiff and powerless, that it was impossible to bend it beyond a right angle, nor could he lift it more than a few inches from his side.

Lastly, the man suffered from excessive fatigue after the slightest exertion. It is proper to add that the sexual desire and power were entirely lost. These symptoms persisted with but slight variation until June, 1869, when the case fell under my observation, and shortly after I referred it to Prof. Austin Flint, who unhesitatingly confirmed the diagnosis of Addison's disease.

In submitting the patient to the *general* influence of the electrical treatment, it was found that a most profound anæsthetic condition of the whole body existed, and a decided impairment of the electro-muscular contractility.

It may be safely asserted that a degree of tension of the electric current was borne by this patient, and without the slightest discomfort, sufficient to prostrate a strong healthy man. One peculiarity, however, must be noticed. By placing the negative pole at the pit of the stomach, and the positive a little above the seventh cervical vertebra, distressing nausea was invariably produced. The same result was noticed during mild galvanization of the cervical sympathetic.

Improvement was manifest from the first day of treatment, and after having administered thirty general applications of the faradic current, and galvanized the sympathetic nerve a number of times, the following is a fair summing up of the condition in which our patient was left:

1st. He had long been completely cured of his constipation.

2d. Sleep was perfectly sound and refreshing.

3d. The dry and parched condition of his mouth and throat was entirely relieved, and all the secretions of

the body had increased in quantity and improved in quality.

4th. His finger-nails were restored to their usual elasticity.

5th. He had approximately recovered the use of his arm. This improvement was manifest after the third application.

6th. The sexual power and desire had returned in decided strength.

7th. Above all, his strength and power of endurance had progressed with the above changes.

At first he was barely able to crawl a single block; he could afterwards walk a couple of miles without suffering unpleasant fatigue, and could readily engage in light labor.

8th. The bronzing of the skin became sensibly lighter, and had decidedly receded on the sides of the fingers and hands.

For nearly two years the patient retained all that he had gained; but a short time ago he presented himself at my office looking more emaciated than I had before seen him, but possessing far more endurance than when he first fell under my observation.

After treating him on two different occasions, he failed to return, but I learned that he failed rapidly, and in a few weeks succumbed.

The autopsy was performed by Dr. Malcolm McLean, in the presence of Drs. Gregory, Brockway and Read. The left capsule was slightly removed from its normal seat at the apex of the kidney, and occupied a position on the upper portion of the internal border.

The organ seemed to be somewhat enlarged, and was found to be completely filled with a yellowish-white opaque matter, evidently a degeneration of the original deposition, which is said to be of a translucent, softish, homogeneous character. In the right capsule the third change in the deposit had occurred, viz.: a drying up into a chalky mass.*

Notwithstanding the authoritative assertions of Drs. Addison, Wilkes and Greenhow, it must be confessed that our knowledge concerning the pathology of this disease is by no means complete. One theory it seems to me, however, deserves especial consideration.

It is well known that the semi-lunar ganglion and solar plexus, and also the pneumogastric and phrenic nerve, supply nervous filaments to the capsule, and upon this fact Dr. Habershon and others base the statement that "the more fully the disease is known, the more completely will it be traced to the sympathetic nerve."

In consideration of the fact that at the outset of the treatment in this case mild galvanization of this nerve produced intense nausea, while as the treatment progressed, and the patient improved, this annoying symptom became less and less marked, until a powerful current could be applied without inconvenience, it certainly seems fair to conclude that the great sympathetic system may be in some way the medium through which supra-renal capsular disease manifests its remarkable and fatal influence.

CASES IN ELECTRO-THERAPEUTICS.

By ALEXANDER MURRAY, M.D.,

NEW YORK.

Hydrocele.—John McCaffrey, aged 40 years, shipcarpenter, applied to me on the 17th August, 1869, for treatment of a hydrocele of the right side of the scrotum. He stated that two years ago, while at work in a shipyard, he was struck accidentally with a splinter of wood on the testicle. Inflammation followed. About four months before I saw the man he noticed that the scrotum grew larger and softer, and caused a dragging pain in the side.

I tapped this hydrocele seven times in eighteen months, the quantity of fluid drawn off varying, at each operation, from 27 oz. to 17 oz. He was unwilling to submit to any operation for a radical cure, lest he might lose the proceeds of a few days' work. He wore a suspensory bandage to support the scrotum. On the 9th May, 1871, I introduced a trocar and canula for the eighth tapping; withdrew the trocar, and before any quantity of the fluid had escaped from the sac I inserted a platina wire as large as the trocar, connecting it with the negative pole of the galvanic battery, and with the positive sponge electrode over the scrotum, I employed a current, gradually increasing it until it produced pain. After thirty minutes I allowed the accumulated fluid (17 oz.) to run off, and then continued the use of the current for five minutes longer.

More than six months have elapsed, and I find upon examination that there has been no reaccumulation of fluid, and that the right side of the scrotum is only a little larger than the left, with no sensation of weight or pain. There was but slight œdema for two days after the operation.

A colored man, 43 years of age, was sent to me in July, 1871, by Dr. K. B. Martin, to try the effect of electricity upon a hydrocele of the right side of the scrotum, with inability to perform the marital act satisfactorily. He stated that in early life he had greatly abused his generative organs, and that about six years ago he had contracted syphilis. He had been under treatment by several physicians for a year previous to his visit to me, without deriving any special local benefit. He wished me to take his case in charge and try what I could do for him without tapping or using cutting instruments. I commenced treatment with labial galvanization to the scrotum, increasing the current to as much as he could bear for thirty minutes, and repeated the application every third day. After the third operation he felt satisfied that electricity was benefiting him, and as there was a manifest diminution of the effusion he requested that a speedier method of cure might be adopted. After local anæsthesia with ether spray I inserted two insulated platina needles, one (+) into the lower, the other (—) into the upper part of the scrotum, well into the middle of the sac, without allowing the points to touch each other, the practical point being to act upon the tunica vaginalis and the fluid accumulation in its sac. A mild current was employed and increased gradually until the patient complained of distension and pain, (in his own words) of a burning or boiling sensation in the scrotum. To relieve this unpleasant feeling without removing the needles, I introduced a canulated steel needle half an inch from the upper needle, passing it obliquely into the sac so as to *touch the upper needle.* I then withdrew the canulated needle and allowed the hard rubber canula to remain, thus permitting the escape of the nascent eliminated gas and some of the liquid, with the result of producing immediate relief. It is evident, from the effect produced in this case by the use of the canula, that the current can be continued much longer, and with little or no pain to the patient, than without it. It is, therefore, a mode of proceeding I would recommend my professional brethren to adopt, and report with what result. Some soreness and œdema were complained of for the remainder of the day and night. On examination, two months subsequently, I found both sides of the scrotum equal in size. The man stated that

* The left supra-renal capsule was presented at a meeting of the N. Y. Pathological Society.

the fluid had entirely disappeared by the second day after the operation. Four applications of general and local faradization were attended with marked increase of the sexual power.

A child, 18 months old, was brought to my office for treatment of a swelling in the left groin, which was recognized as an encysted hydrocele of the cord. Ether spray was used before the introduction of two steel insulated needles, with gilt points, connected with the negative pole of the battery. The current of ten cells was employed for fifteen minutes. On the next day the constant current, without the needles, was applied. In three days the fluid accumulation was entirely absorbed.

Fissured Nipples.—The constant current was used in four cases of excoriated and fissured nipples in nursing women. A small nipple electrode of silver or platina was applied to the abrasions, and into the fissures on or around the nipples for a few minutes. A mild current was used and continued until the diseased part presented a greyish ash color; subsequently it was exposed to the air for thirty or forty minutes, to harden or oxidize the affected part. Any moisture that remained was dusted over with dry oxide of zinc. Invariably in the course of twenty-four to forty-eight hours the process of healing was complete.

Fistula in Ano.—In August, 1871, John Connor, who, for nearly eighteen months, had been suffering from a fistula in ano, applied to me for treatment, requesting a cure if possible without a surgical operation. I introduced a small probe of platina wire into the fistulous canal, and a wooden scoop into the rectum as a point d'appui for the extremity of the probe. During the operation a galvanic current of fifteen cells steadily increased was allowed to pass for fifteen minutes. The battery having been freshly filled that day, the probe became heated so rapidly that I was compelled to desist from the application sooner than I had wished. However, I was gratified to find that, at the expiration of five days, the fistula had entirely healed.

Ulcers of the Leg.—In the treatment of ulcers of the lower extremities, I have almost invariably applied the positive pole of the battery, through a medium of a disk of platina, silver, or nickel, to the ulcer itself, closing the circuit, and by means of the wet chamois electrode close to and around the diseased part. The disk I have used is about one-eighth to one-twelfth of an inch in thickness. I cannot recommend pure nickel for this purpose, as it is difficult to clean and polish it as needed before it can be used again. Platina is decidedly preferable, as it is the cleanest and best metal.

A man, aged 30 years, with seven ulcers upon the lower third of the right leg, applied to me for treatment during the month of October instant. These ulcers were of two years' standing, and as the case appeared to me to be one favorable for testing the relative merits of the poles, the size and condition of each ulcer being as nearly as possible uniform, I selected four for treatment by the positive and three by the negative pole. I first cleansed the sores with a piece of sponge wet with a weak solution of chlorinated soda, and having *partially* dried them I applied the flat-disk electrode as before explained. The superiority of the flat-disk over the button or ball-shaped electrode is evident, when we consider that ulcers heal from the sides first rather than from the bottom. I applied the galvanic current as strong as could be borne to each ulcer for the space of five minutes, occasionally wiping away any discharge. This treatment was repeated every third day. In two weeks the healing process, in the four under the influence of the positive pole, was considerably in advance of that of the three under that of the negative. In general I do not limit myself to any specified time in the galvanization of ulcers, but continue the application of the current until they present the *appearance of having been slightly seared with the actual cautery.*

Detection of a Needle in Soft Tissues.—Ann F., aged 26 years, seamstress, a slight-built and delicate woman, called on me to cure her of an inability to extend or raise her left hand. She had experienced attacks of hysteria during the last eight years. Catamenia regular, but scanty. Faradization was employed. In a few minutes she screamed and begged me to desist. On looking at the hand the abductor muscles of the thumb were tense, and a sharp-pointed body projected beneath the skin. I asked her what she supposed it was. She stated that about six years ago a needle was broken in her hand, and could not at the time be extracted. She had forgotten all about it until her attention was attracted to the painful part. I made her hold the electrode while I got a scalpel to cut over the foreign body. I extracted the eye-half of a No. 8 needle, bright as when new. The hand required no further treatment than rest for a few days.

Another case of some interest presenting itself was that of a boy 8 years old, who had been bitten by a dog on the right buttock. Ten minutes, probably, had not elapsed when I saw the lad. The bitten part was about an inch and a half in diameter, without laceration of the cuticle, but presenting a purplish black-colored contusion. I applied the galvanic current with wet chamois covered electrodes directly to the part. In five minutes the discoloration had entirely disappeared. On the next day a slight greenish stain was all the evidence that remained of the injury.

The following is a short epitome of nine cases of deficient secretion of milk, in which local faradization was applied directly to the mammary gland.

In four the electro-magnetic current was applied, with negative results.

In two the magneto-electric current was applied. In one of these the result was negative; in the other success attended after daily application for sixteen days.

In three, the magneto-electric current was also applied, with the result of producing a good supply of the lacteal fluid so long as the use of the current was repeated daily; but the secretion ceased if it was omitted for twenty-four hours.

One woman, to whose breast I applied the galvanic current, gave the breast to her child immediately after. In less than an hour the child was attacked with severe vomiting, purging, and convulsions, although it had been previously remarkably healthy. I attributed the sickness to an electrolytic change in the milk, the effect of the galvanic current.

I have a variety of electrical machines by different makers, but latterly I have used the newly-improved induction instrument and the portable galvanic battery made by the Galvano-Faradic Manufacturing Co., New York. I find them reliable, efficient, and better adapted for the various purposes of Electro-Therapeutics than any other with which I am acquainted.

229 East 10th St., New York.

Progress of Medical Science.

Hyperæmia of the Entire Vaginal Mucous Membrane and External Genital Organs resulting in the Formation and Growth of False Membrane.—Dr. Garry H. Miner, of Morris, Conn., reports the following case: Mrs. —— ——, a young married lady—never had children—sent for me, October 1, 1871, and

stated that for some time she had been troubled with inflammation, swelling, pain, and tenderness of the external genital organs, which she had kept to herself (I suppose for prudish reasons) till now; that she was getting worse, and was obliged to seek relief if it could be had. I found the facts as she had stated, and that the inflammation extended throughout the entire vagina, attended with a considerable leucorrhœal discharge. Uterus in normal condition. Her general appearance was anæmic, pale, thin; countenance anxious; pulse weak; frequent attacks of headache and gastric irritation; unable to sit up much. I gave her at once a strong alcoholic tinct. of the root of the *iris versicolor*, in full doses, to be repeated every six hours; also a full dose of *iodoform* every twelve hours, and a very strong solution of nitrat. argenti—℥ i. to ℥ i. of water—quite strong, to be used per vaginam with a female syringe twice a day for two days; then once a day for two days, then once on the second day after that; again once on the fourth day, the eighth day, sixteenth, and so on. I saw her occasionally; she said she was much better and getting well.

About fifteen days after commencing treatment she asked me to call, and stated that she had got to be very well; but in passing water that morning, after rising, she discharged at the same time a considerable quantity of skinny or membranous matter that looked like light-colored rubber cloth, and wanted me to explain it. I asked her if she had expulsive pains, like parturition. She said no pain at all, that it came away much like her monthly courses, with little or no sensation; she had it rolled up in paper. I unfolded and spread it; then placed it in water, and found that it was a complete funnel-shaped tubular cast or model of the entire vagina and external genitals—I mean of the mucous membrane lining those organs and the rugæ or convolutions of that membrane as it is when not distended—were plainly to be seen, and are now like furrows over the surface, looking like artificial work. I took it and placed it on my finger, then on my thumb—which it fitted very well and looked much like the thumb of a light-colored kid glove, except that it was open at both ends. The length was about three and a half inches; the diameter of the anterior part, where it was attached about the os externum, was about one-third of an inch, and that of the posterior part, before it contracted to embrace the cervix uteri, was about one inch. I then, after examining it, distended it on cork and suspended it in alcohol, where it looks much like the thumb of a glove, and is in a good state of preservation. It is about as thick as kid leather, but not as strong.

My theory of the case is, that from some cause the mucous surface of the vagina became irritated, which was succeeded by hyperæmia of the parts; and in consequence of this excessive action, the vessels took secretory action and resulted in the formation and growth of this false or adventitious membrane, investing all those parts. The remedies applied were successful, abating diseased action; in consequence the membrane was detached and cast off like a foreign body from the system.

I have attended medical lectures; have been engaged considerably in uterine practice for more than thirty years; have read some—have had much intercourse with medical societies and medical men, and have never met with anything, nor heard of anything of the kind before; and I believe the case to be unique and without precedent in all the annals of medical science. But if I am mistaken in that opinion, I hope to be corrected by those who may be conversant with such facts. I offer the case for publication, for I think it ought not to sink in oblivion. The lady is now well, but of sedentary habits, not being obliged to exert herself much.

The Efficacy of the Warm Bath.—Dr. Judson, of Atlanta, Ga. (*Atlanta Med. and Surg. Journ.*), reported, at the Atlanta Academy of Medicine, a case of apparent death of a new-born child, in which cold water, camphor, and artificial respiration were used without producing any effect. He then resorted to the warm-bath, which soon resuscitated the child. Sixteen minutes elapsed from the birth of the child until it first respired.

Dr. Cumming remarked that this case recalled to mind one which Dr. John Ross, of Toronto, Canada, and himself treated several years ago. They continued to work with the child for fourteen hours after birth, before it was fully resuscitated.

Cloth Tents.—Dr. Logan, of Atlanta, Ga. (*Atlanta Med. and Surg. Journ.*), exhibited to the members of the Atlanta Academy of Medicine some cloth tents made by Dr. V. H. Taliaferro, of Columbus, Ga. The advantages claimed for the cloth over the sponge tents are the following:—1st. Its cheapness, simplicity, and easy preparation. Any one, with a little practice, can make them. The strips of cloth should be from one-half to one inch wide, and rolled between the thumb and forefinger. To make them sufficiently firm, they require to be rolled very tightly. 2d. The easy and thorough manner in which medication may be made to the cavity of the uterus and cervical canal—separately, or to both at the same time. The point of the tent may be alone medicated, if it is desirable, or that portion only coming in contact with the cervix. 3d. It does not produce irritation and pain, and hence, is free from the serious, and sometimes, fatal inflammatory results of the sponge tent. It is soft, flexible, innoxious, and readily adapts itself to the shape of the uterine cavity. 4th. The large amount of medicament that may be thus applied acts so gradually on the uterine surface as to create no disturbances, such as uterine colics, inflammations, etc., that so frequently occur with the sponge. 5th. Its easy removal from the uterus, which the patient may do himself, if desirable, by means of the thread attached to the distal extremity. The removal of the sponge is often difficult and painful.

Prolapsus Uteri.—In a discussion on the use of Meigs' pessary in prolapsus uteri, Dr. W. F. Westmorland (*Atlanta Med. and Surg. Journ.*) remarked that he did not believe in any definite fixed positions of the uterus after marriage. He has not used a pessary in ten years. Has frequently seen cases in which prolapse had advanced even to procidentia, and there were no distressing nervous sensations.

Dr. Warren Stone treats these cases by placing the patient on her back for a number of days, and directing attention to constringing the vagina, thus giving a support to the uterus by its increased tone. This he effects by a piece of cotton saturated with tannin, alum, or oak-bark, or other like remedy. He never uses a pessary.

An Eczematous Eruption following Handling Lime.—Dr. Octerlony, of Louisville, Ky. (*Rich. and Louis. Med. Journ.*), mentioned the case of a lady, who, in cleaning house, had handled lime upon the walls, and while her hands were soiled with the lime, had used them to put back her hair from her face. The next day there appeared an eczematous eruption upon the forehead near the roots of the hair, and upon the neck, and also affecting the ends of the fingers. There was great œdema extending to and involving the

eyelids. Under the use of mild, cooling, and astringent lotions she soon recovered.

Dimness of Vision following the Use of Hydrate of Chloral.—E. Burke Haywood, M.D., Raleigh, N. C. (*Rich. and Louis. Med. Journ.*), writes that he gave hydrate of chloral, in twenty-grain doses, for two weeks, to an old gentleman complaining of buzzing in the head, pulsation in the epigastrium, and soreness around the waist. At the expiration of two weeks the patient complained of dimness of vision, which, rapidly increasing, he suspected that this remedy caused it, and discontinued its use, when his vision improved, and gradually became as good as it was before using the hydrate of chloral.

Chlorate of Potassa in Dysentery.—Dr. A. B. Isham, of Cincinnati, Ohio (*The Clinic*), says that in cases of chronic purulent dysentery, which resisted the usual mode of treatment, he has resorted to the use of chlorate of potassa with success.

Clinical Treatment of Pneumonia.—Prof. Lebert, of Breslau (*Transln. in the Clinic*), says that the ground basis of the treatment of pneumonia, so long as its peculiar manifestations exist in moderate grade, threatening no immediate danger, should be eminently expectant, chiefly only dietetic-hygienic. He has treated more than forty cases during the past year, for the most part negatively, and finds that patients feel subjectively much better, by this method, than under the former plans with antimony, digitalis, veratrine, etc. They are spared too, in this way, the temporary disease caused by the remedy itself. Warm bed-covers are condemned. In Breslau it is the custom to sleep between feather-beds. These have been thrust aside in his clinic, and patients become accustomed to the frequent opening of the windows by day, even in the coldest weather of winter. Notwithstanding the lessened appetite, the patient, even in still increasing fever, is not to be allowed to fast entirely, which is too generally the rule; light gruels of barley or oatmeal, in violent thirst in greater quantities, with nourishing and alleviating drinks. In intense fever, hard pulse, if no diarrhœa be present, acid drinks are most agreeable; the best is cold lemonade, only moderately sweetened and prepared from fresh lemons. Mixtures of fruit syrups, raspberry-juice, etc., are occasionally temporarily agreeable, but are usually not long palatable. Many patients prefer warm drinks, and they suit better when there is inclination to racking cough or diarrhœa. Common tea, from a teaspoonful to three-quarters of a cup, is a good drink in relieving irritation. Seltzer-water with milk is refreshing when the fever begins to diminish and blood no longer presents in the sputa. When the appetite is very poor, infusions of quassia and decoctions of Iceland moss are of value. In very reduced patients, in typhoid conditions of the disease, he generally adds to the teas or other drinks a teaspoonful or two of ether syrup to the glass or dessert-spoonful of Rhine, red, or Hungarian wine. Under such conditions the combination of wine and lemonade is excellent.

Scarlatina.—Dr. Richard Inglis, of Detroit, Mich. (*Review of Med.*), presents an interesting paper on scarlatina, in which the early history of this malady is noted. Ingrassia, of Naples, was about the first to describe it accurately; it was called by him, in A.D. 1500, *rossalia*; in 1565 it was epidemic in Paris, and was named by Ballonius, *rubiola*; he carefully distinguishes it from measles, *morbille*. In 1580 it was known in Spain as the *garotillo*; in 1680, in Italy, as *morbillo ignei*. It was not recognized in England as a disease differing from measles until 1650. Probably the first record of its appearance in this country is an account of an epidemic which broke out in Kingston township, fifty miles eastward from Boston, in 1735. Dr. Douglas, of Boston, has left a record of it under the title of the "Practical History of a new Epidemical Miliary Fever with an Angina Ulcusculosa."

A Case of Mogigraphia.—Dr. Noyes, of Detroit, Mich. (*Detroit Review of Medicine*), reported a rare as well as a very interesting case of scrivener's spasm or palsy. The case was that of a bank-clerk, who had been a long time engaged in writing rapidly and very constantly, until exhausted. He complained at first of numbness in thumb and index-finger. The numbness grew worse, and after writing a while, he was unable to hold the pen at all. The constant galvanic current has been used with benefit, in connection with cold showering.

Dr. Livermore said that he had seen a number of cases of this affection in Europe, which were enabled to write by fitting a block to the pen, to be held in the ball of the hand.

We would remark that Prof. Eastman, of Eastman's Commercial College, Poughkeepsie, has devised an excellent pen-holder, with an egg-shaped attachment for the palm of the hand, which is well adapted to cases of mogigraphia.

Carbolic Cerate.—Charles Boehme (*Am. Journal Pharmacy*), says the following is an excellent formula: —R. Adipis, ℥ x.; ceræ albæ, ℥ v.; terebinth. Can. ℥ i; acid. carboliei, ℥ i. Melt the lard and wax together, add the balsam fir, and when it begins to cool, stir in the carbolic acid. The addition of balsam fir to this preparation corrects the disagreeable odor of the acid, and renders it slightly adhesive.

Zinc Poisoning.—A case of chronic zinc poisoning is related in the *Journal of Chemistry*, which was traced to the use of a submerged galvanized iron pump. Headache, nausea, and gastric distress, pain in the larger joints, and partial paralysis of the lower limbs and right arm, were the prominent symptoms.

Operation for Contraction of both Knee-Joints.—A novel case of contraction of both knee-joints, in a boy 13 years old, the result of abscesses associated with non-congenital talipes equinus, is reported by J. A. Grant, M.D., of Montreal, in the *Canada Medical Journal*, which was obviated by two operations. Two lithographs accompany the history of the case—one showing the appearance of the limbs before the operation, and the other after the operation. The boy now moves about on crutches, with ease and comfort in the erect position, and is employed as a ferry-man.

Fatty Tumor of the Neck.—Dr. W. B. Slayter, of Montreal, Canada (*Canada Medical Journal*), publishes a case of fatty tumor of the neck, of enormous size, weighing thirty-one pounds. The patient was 69 years of age. This was successfully removed; acupressure pins were applied to the bleeding arteries, and Richardson's styptic colloid, after tinct. ferri had failed, stopped the secondary hemorrhage.

The Radical Operation for Prolapsus Uteri.—Dr. Paul Munde, of Stuttgart (*Amer. Journ. of Obstetrics*), publishes the radical operation for prolapsus uteri, as practised by Prof. Carl Braun, of Vienna, with a report of six successful cases. He opens the paper by saying that the radical operation in question is by no means new, and has already been described by its author in the *Wiener Med. Wochenschrift*, Nos. 31 and 32, in the year 1859; it still does not appear to be

very generally known, and certainly is very little, if at all, practised outside of the school where it originated. The paper is accompanied by eight plates giving the mode of operation.

Relaxation of the Pelvic Articulations during Pregnancy.—Dr. F. A. King, Washington, D. C. (*Am. Journ. Obstetrics*), in an extended paper on this subject, shows directly that the pelvic enlargement takes place, not by separation of the bones, but by their being wedged more closely together. Physiological enlargement of the pelvic canal, in addition to that which takes place during pregnancy from thickening of the interosseous cartilages, is further increased during parturition by the muscular efforts of the female forcing the wedge-shaped sacrum downwards and backwards between the two iliac bones.

In conclusion, he says, the practical inference to be drawn therefrom is, that square on the back is the proper position for delivery; that the feet, or knees, should find a firm support on a surface disposed evenly *transverse* to the axis of the body, and that *two* sheets, one for each hand, or the hand of an assistant on each side, should be so arranged that the woman may pull on them, not diagonally, but in a line *parallel* to the axis of her body, so that the spine may exert its downward force evenly upon the base of the sacral wedge.

Excision of Cancer of the Œsophagus.—The last number of the *Archiv für Klinische Chirurgie* contains a paper by Dr. Billroth, in which he proposes, in cases of carcinomatous stricture of the œsophagus occurring in an accessible situation, to cut out, through its whole circumference, that portion of the tube which contains the disease. He has not yet performed this operation on the human subject; but he is led to believe in its practicability, first, from the occasional restoration of the urethral canal after its division, and secondly by the result of an experiment which he performed on a dog. He cut out about an inch and a quarter of the animal's œsophagus, fastened the lower end to the edge of the wound by two sutures, and fed the dog with milk through an œsophageal tube passed through the mouth into the stomach. The sutures were removed about a week after the operation. There was considerable mucous discharge from the wound. The external wound gradually contracted, and the discharge diminished. About ten weeks after the operation the external opening was completely closed. Bougies were frequently introduced so as to dilate the cicatrix, and the dog gradually regained the power of eating flesh, potatoes, etc., and swallowing them with ease. Three months after the operation the animal was killed. The œsophagus presented a simple annular cicatrix, scarcely half a line wide; the tube was completely pervious.

Fusion of Leaden Bullets in Gunshot Wounds.—Dr. Muhlhauser, writing to the *Centralblatt*, offers a theory of the cause which produces the effects upon the soft tissues which are sometimes erroneously attributed to the use of explosive bullets. According to the calculations of Tyndal and Hagenbach, if a bullet, moving at a rate of 400 mètres per second, is suddenly arrested in its course, its temperature will be raised to 582 Cent., a velocity of 210 mètres per second sufficing, when thus arrested, to raise the temperature of the bullet to the fusion point of lead. This fact, he claims, will account for the many peculiar forms assumed by balls which have been suddenly arrested by large bones, and also for the burning and destruction of adjoining tissues attributed to the explosive missiles.

Artificial Expiration in Pulmonary Emphysema.—Dr. J. B. Berkardt (*The Lancet* of Nov. 25) advocates the use of this mode of treating the affection, and describes an apparatus to be used for the purpose of exerting a suction force upon the air contained in the lungs and bronchial tubes, and thus favoring diminution in the size of the air-vesicles. Describing some of the effects of this plan of treatment, he says that even after the first application the patients experience great relief and delight in showing that they are now able to take a deep breath. The sense of oppression gradually ceases, and the frequency of the respiratory movements, which are at first increased, diminish from 25 to 16 per minute. Expectoration is at first more profuse, but soon ceases entirely.

Liebreich's Operation for Extraction of Cataract.—Prof. Leibrich says that during the four years past he has in more than three hundred cases employed the following method for extracting cataract in preference to the one recommended by Graefe, which he had formerly employed, and finds it to be, in many respects, its superior. The incision of the cornea is to be made with the smallest possible Graefe's knife in the following manner: "Puncture and contra-puncture are made in the sclerotic about one millimetre beyond the cornea, the whole of the remaining incision passing with a very slight curve through the cornea, so that the centre of it is about one millimetre and a half distant from the margin of the cornea. This incision can be made upwards or downwards, with or without iridectomy, and the lens can be removed through it with or without the capsule. If, as I now practise, the extraction is made downwards without iridectomy, the whole operation is reduced to the greatest simplicity, and does not require narcosis, assistance, elevator, or fixation; and only two instruments, Graefe's knife, and one cystotome with Daviel's spoon (*Br. Medical Journal*, No. 570).

Hydrate of Chloral.—Joseph R. Beck, M.D., Fort Wayne, Ind. (*Phila. Med. Times*), is decidedly inclined to the opinion that a dose of fifteen grains is sufficient to commence with in any case. In regard to the frequency of the dose, experience has taught him that it may be safely repeated every two hours for a limited time—say twelve or twenty-four hours, if its effect be not induced sooner.

Ulcus Corneæ Serpens.—G. E. Hatton, M.D., Vienna (*Boston Med. and Surg. Journ.*), describes the treatment of this disease by Prof. Saemisch, of Bonn, and states that ether is not needed for the operation in most cases. Prof. S. has performed the operation more than sixty times, and always with good results. He never uses ether or chloroform.

Poisoning by Strychnine treated by Inhalation of Chloroform.—Dr. L. B. Kay, Chillicothe, Missouri (*Kansas City Med. Journ.*), records two cases of this character which were relieved by the inhalation of chloroform for eight hours, when the use of bromide of potassium and morphine was begun.

Quinine in Malarial Fevers.—Dr. A. B. Palmer, Ann Arbor, Mich. (*Mich. Univ. Med. Journ.*), believes that quinine is, under some circumstances, capable of injuring the system, and is more likely to do so when long continued, for a week or more, in doses of from six to ten grains a day, than from twenty or thirty grains given during a single day. In relapsing cases his experience has taught him that eliminatives are quite as frequently required as tonics, though the latter, particularly in the form of iron, often combined with grain doses of quinine three times a day, will often prove useful.

Phosphorus in the Human Stomach.—Dr. C. T. Jackson (*Boston Med. and Surg. Journ.*) made a chemical analysis of a stomach taken from a young woman who died of tuberculous consumption, for the purpose of ascertaining the amount of phosphorus contained in the organ, no such analysis being found in books on Toxicology. The stomach, in its natural state of moisture, weighed 2.000 grains, and when dried, 380 grains; 200 grains of the dry stomach, burned in a platinum capsule, gave 4.5 ashes, which, on analysis, yielded:—

Phosphate of lime	0.90 grs.	$=P_2O_5$ 0.503 $=P=0.233$
Phosphate of soda	3.01 "	$=P_2O_5$ 1.599 $=P=0.702$
Chloride of sod. and other salts	0.50	0.935
Insol. siliceous matter	0.08	
	4.49	

Then 380 grains of dried stomach contain 1.3015 grains of phosphorus, and, of course, the 2,000 grains of moist stomach the same amount.

Eczema Cured by Strong Mental Emotion.— Dr. S. K. Towle, of Milwaukee, Wis. (*Boston Med. and Surg. Journ.*), reports a case of chronic and exceedingly obstinate eczema affecting the perinæum and surrounding parts, which, after many years of intolerable itching, smarting, advance and retreat, was cured, at least for a time, by intense emotion caused by the recent fire in Chicago. The patient, a young lady of Chicago, had for some time been trying arsenic internally and rubber tissue externally, with, however, but little apparent relief. At the time of the fire her home was threatened, but not burned. She says:—"I was not frightened, but filled with solemn awe, and stood calm and still, awaiting the approach of the fire, ready to walk quietly away when it became evident that our house was in danger." At that time the disease entirely disappeared, and has not returned up to the present time.

Gallic Acid in Uterine Hemorrhage.—In a late session of the Gynæcological Society of Boston (*Journ. Gynæcological Soc.*), Dr. Hazelton remarked that in a case of flooding from retained placenta, after abortion, he had relied on good nourishing diet, with lead and opium. After the cervix had dilated sufficiently, he removed the mass with an ordinary polypus forceps.

Dr. Weston advocated the use of gallic acid. Dr. Martin had read Dr. Simpson's paper on this remedy, and had given it a fair trial. According to his observation, the patient was required to take from one to two drachms before any effect was perceptible.

Excision of the Hip-Joint in Morbus Coxarius.—Dr. P. S. Conner, Cincinnati, Ohio (*The Clinic*), in an extended paper read before the Meigs and Mason Academy of Medicine, thus sums up: Excision of the hip for morbus coxarius is a justifiable operation; it is only applicable to cases in which there is carious or necrosed bone, limited to such an extent of the shaft of the femur as not to leave the limb useless after its removal; it should only be performed when there is no reasonable ground for expecting a cure from the use of less formidable measures; and recovery may be expected in from 65 to 80 per cent. of the cases in children. It gives far better ground for anticipating a cure than does non-interference with the process of separation and elimination of the dead bone, and when recovery takes place the joint and limb are much more useful than when the cure has occurred spontaneously.

The Spinal Ice-Bag in Traumatic Tetanus.—Dr. P. H. Spohn, of Penetanguishene, Canada (*Canada Lancet*), has used the spinal ice-bag in traumatic tetanus, and is convinced that it will not prove a "*panacea*," as has been advocated by Dr. Chapman and others. Although it did not accomplish what he expected, still it gave more permanent relief than anything else. He found that the local application of tobacco with the ice-bag was better than the ice alone.

Carbonate of Iron in Malarial Fevers.—Dr. Henry R. Brissett, of St. John's, N. B. (*Canada Lancet*), writes that the following formula is a useful one, where quinine alone has failed in cases of intermittent and remittent fevers:—℞. Ferri sub. carb. ʒ ss.; quinia sulph., ɔ iss.; syr. simplex, ʒ vi. Mix. Sig.: a teaspoonful four times a day.

External Application of Chloral Hydrate.—Dr. Charles S. Strother, Barnesville, Geo. (*Atlanta Med. and Surg. Journ.*), calls the attention of the profession to the external application of hydrate of chloral as a powerful and speedy counter-irritant, and, to a considerable extent, a local anodyne. The idea first suggested itself to Dr. McDowell in 1870, when he accidentally applied a small portion of chloral to his own face, instantly producing a burning sensation. It has been used with good results in facial neuralgia, pleurodynia, rheumatism, gastralgia, in uterine and ovarian pains, in advanced phthisis, and in relieving persistent nausea and vomiting. The mode of applying the chloral is as follows:—Place ɔi. in a plate or a saucer, add water to make a saturated solution, and then apply with the tips of the fingers, with slight friction, over a space as large as the palm, or *pro re nata*. Should the burning be too intense, the parts may be sponged off in a few minutes with a cloth wrung out of warm water; and then apply glycerine with a little spirits camphor, or the glycerine alone, olive oil, or sweet cream.

Croton-Chloral-Hydrate.—At a recent meeting of German Naturalists and Physicians, Dr. O. Liebreich, to whom medicine is indebted for the introduction of chloral, called attention to the properties of a narcotic agent termed "croton-chloral-hydrate," which is made by passing chlorine into allyl, and is decomposed by alkalies into dichloride of allyl and formic acid, hydrochloric acid being also formed. The first effect of its administration to animals is marked anæsthesia of the head, while sensation is preserved over the rest of the body. Next there is a general loss of reflex irritability, the pulse and respirations remaining unchanged. If a large dose be given, death is produced by paralysis of the medulla oblongata. The animal may be preserved alive by artificial respiration, the action of the heart remaining unaltered, whereas the final effect of chloral is to produce paralysis of the heart. That death in animals poisoned by croton-chloral-hydrate arises from paralysis of the medulla oblongata, is shown by the fact that contraction of the diaphragm is not produced by galvanism of the central end of the vagus, whereas it follows irritation of the phrenic nerve. When the animal has so far recovered that the breathing has become natural, then irritation of the central end of the vagus produces contraction of the diaphragm. The effects of this agent had also been tried on the human subject in the Berlin Hospital. In a child to whom it was given, complete anæsthesia of the parts supplied by the trigeminus nerve was produced, while the reflex irritability of the rest of the body was retained. The pulse and respirations were unchanged in number throughout. Further researches on insane patients gave the same result, and Dr. Liebreich concluded therefrom that croton-chloral-hydrate has the property of inducing profound narcosis without interfering with other organs than the brain; while a correspondingly deep narcosis produced by chloral is accompanied by general anæsthesia and by dangerous lowering of the heart's action.

The Medical Record.

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George F. Shrady, A.M., M.D., Editor.

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New York, January 15, 1872.

REPORT OF THE HEALTH DEPARTMENT.

The report of the Health Department for the year ending April, 1871, has at length made its appearance. It was unfortunate that the publication of this, the most important of our municipal chronicles, should have been retarded by the recent embarrassments of the New York Printing Company, to whom it was entrusted. A report upon public health is the more interesting in proportion as it deals with facts yet fresh in our recollection. Still, the volume before us is full of matter which cannot fail to be instructive to the medical man, and which is at once significant in its relations to the past, and suggestive in its bearings upon the future.

The reorganization of the Board of Health according to the provisions of the Charter of 1870 seems to have been effected without derangement to the complicated machinery of the Department. The newly appointed Commissioners were wise enough to select for their principal executive officers men whose long experience under the Metropolitan Board of Health, and whose peculiar fitness for their new posts enabled them to seize with skill the reins so suddenly dropped by their predecessors almost at the threshold of the sickly season. The old corps of inspectors was likewise, with few exceptions, retained. Thus the important Bureaus of Sanitary Inspection and of Vital Statistics suffered no interruption to their operations, and the reforms speedily introduced by their zealous superintendents increased the usefulness and elevated the character of the work.

The report of Dr. Moreau Morris, City Sanitary Inspector, is a clear and simple statement of what has been accomplished in his bureau, and exhibits briefly the advances which practical sanitary science has been making. His efforts appear to have been particularly directed to secure public immunity from every species of contagion. To this end an acquaintance with the localities where contagious diseases exist is the first essential. Such information must of necessity be derived from the attending physicians, of whom reports of these cases are required in every instance. "A daily record is kept of every such report, upon the receipt of which the Health Inspector of the district in which it occurs is immediately notified by telegraph to his office what measures are necessary. These measures are judged of by the circumstances surrounding each case, no unvarying rule being applicable to all. If, in the judgment of the Health Inspector, he deems it necessary for the public protection that the patient should be removed to hospital for isolation, and provided he is willing to go, the fact is immediately telegraphed to the Central Office, and an ambulance (obtained from the Commissioners of Charities and Correction) despatched for the purpose; if, however, the patient declines to leave his home, a joint report upon the visit of a second health inspector is made out, and thereupon an order is issued for the removal, and if necessary the police force is called upon for assistance, the power of removal having been lodged in the Board of Health by statute." "In the execution of this duty all the facts and surrounding circumstances are carefully weighed, and whenever it is deemed prudent or justifiable, with due regard to the public safety, the patient is allowed to remain in his own premises." In the latter class of cases isolation and disinfection by the most approved agents are the measures resorted to. For this purpose a special corps has been organized, "whose duties have been efficiently performed under the application of scientific chemical knowledge, and positive results have been accomplished such as have been heretofore deemed only problematical."

The principal contagious diseases which demanded attention and frequently required removal to hospital (mostly from tenement-houses), were Relapsing Fever and Small-Pox. But it appears that there were several serious obstacles to the success of these important sanitary precautions.

1st. Physicians did not respond as generally as they should have done to the regulation requiring reports of such cases.

2d. Proper sanitary care was not exercised over those patients allowed to remain at home under the care of friends and attending physicians.

3d. The Board of Health had "very imperfect control over the sick poor who were proper subjects for hospital care. When removed from their houses these persons are delivered to the Commissioners of Public Charities and Correction, and placed in hospitals under their charge. *These hospitals, when inspected, were found to be inadequate in capacity and seriously defective in sanitary appliances and precautionary measures, both in their external and internal management.*" Hence it was deemed very desirable that the Board of Health should be empowered to provide hospitals for contagious dis-

eases, which should be entirely under its own supervision and control. This power it does not now possess, except in times of pestilence. We understand that a bill making an appropriation for such purpose was prepared for presentation to the last Legislature; but at the moment of its adoption it was found that through some "sharp practice" the name of the Board of Health had been stricken out, and that of the Commissioners of Charities and Correction substituted.

Dr. Morris informs us that the efforts of the Health Department towards securing an adequate supply of air and light in tenement-houses have at length resulted in a general compliance with the law bearing upon those most essential points, thus insuring a permanent benefit to their inhabitants. The testimony of the inspectors is uniform in regard to a marked and gratifying improvement in the matter of cleanliness in tenement-houses, and an increased disposition on the part of both owners and tenants to keep hall-ways, yards, alleys, and areas in wholesome condition. Some valuable suggestions for obviating what Inspector Stiles aptly terms "the architectural causes of disease" in such dwellings, are furnished by the various inspectors whose long experience is the best guarantee of their practicability. These gentlemen are all physicians of high standing in the profession, and their various reports upon their several spheres of duty evince a most thorough acquaintance with the local peculiarities and sanitary wants of their respective districts.

The report of Dr. Charles P. Russel, Registrar of Vital Statistics, is essentially a long one, but one of deep interest to the profession. Notwithstanding its manifold and intricate tables, the lucid and comprehensive analysis which accompanies them divests them of all their terrors. Dr. Russel has adopted a new system of recording mortality, which renders his statistics as nearly perfect as possible. His figures are based upon the *actual* instead of upon the *registered* mortality, which, as he remarks, although closely approximating each other in the large aggregate, present constant discrepancies from day to day and week to week, which affect their relations with meteorological phenomena. We may remark for the benefit of some of our readers, that the *registered* mortality of any particular week is deduced simply from the certificates of death received during that week, many of which refer to deaths belonging to the previous week. The statistics of most of the great cities of the world are for convenience founded upon this *registered* mortality of stated periods.

After a minute preliminary description of the mortuary and meteorological features of each month and quarter of the year 1870, there follows a succinct review of the principal causes which influenced the mortality of the whole year, and a comparison with the four previous years in respect to peculiarities exhibited by prominent diseases. We are informed that the mortality of the year 1870 amounted to 27,175, which in a population, according to the last census, of 942,292, was equivalent to 28.79 deaths in each thousand inhabitants—being a weekly average of 522. This death-rate is shown to have been greater than that of any other American city for the same time, except of New Orleans (36.24), and Montreal (31.3). It was considerably higher than that of London (24), but was exceeded by that of Liverpool (31.1) and of Vienna (29.8). The yearly mortality here was 360 greater than in 1866 (the cholera year), 4,016 greater than in 1867, 2,286 greater than in 1868, and 2,008 greater than in 1869. This excess is attributed to an unusual fatality of diarrhœal affections, small-pox, scarlatina, and phthisis, with the presence of an epidemic of relapsing fever, which occasioned 184 deaths. The greater death-rate of New York, as compared with that of other cities, is explained to have been more apparent than real, as in few cities is it possible to establish that stringent surveillance which the isolation of New York renders it practicable to maintain over the exportation of dead bodies. Thus in other places deceased persons are constantly removed and buried without legal authorization, it being stated that "in England and Wales, notwithstanding the universal compulsory system of registration, 50,000 interments annually escape the attention of the authorities, and consequently have no authentic record." In the city of Buffalo the system is so imperfect that but fourteen deaths in the thousand inhabitants were registered for 1870.

A most gratifying improvement is shown by Dr. Russel to have taken place in the health of our tenement-house population. Although they constitute less than one-half of the whole population, they contributed in 1868 seventy-six per cent. of the total mortality, in 1869 sixty-eight per cent., while in 1870 it was farther reduced to sixty-six per cent., equivalent to a saving of 2,600 lives. Individual tenement-houses are indicated in which from three to twelve deaths are certain to occur every year, and an interesting description of the model tenement-houses of London is appended as a suggestion for the erection of similar dwellings here.

Dr. Russel's statistics bear a very close scrutiny, and their entire accuracy is somewhat refreshing to students of mortuary statistics when compared with the glaring inaccuracies in the reports of former years. We have often been struck with such figures as appear in the Report of the Metropolitan Board of Health for 1867 (the only one by us at present), where a table on page 61 gives the mortality of the spring quarter as 5,121, while the next table shows it as 4,247—and a table on page 65 gives the mortality of the summer quarter as 7,516, while a subsequent table presents it as 6,478.

There are embodied in the present report two extremely valuable papers: one by Dr. Stephen Smith, upon relapsing fever, and another by Dr. J. C. Nott, upon yellow fever. The latter has appeared substantially in the RECORD in the form of a paper read by Dr.

Nott last November, before the Academy of Medicine. The volume is completed by a very able report on Sanitary Engineering and Drainage, by General Egbert L. Vielé, and another on Explosive Burning-Fluids, by Prof. C. F. Chandler.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 16, 1871.

Dr. E. R. Peaslee, President, in the Chair.

DISCUSSION ON YELLOW-FEVER.

The following remarks on "Yellow-Fever" were omitted in the discussion published in our issue of December 1st:

Dr. A. N. Bell, of Brooklyn, said, like Professor Clark he would prefer to consider the subject, so ably presented by Dr. Nott, at a future meeting of the Academy, after Dr. Nott's paper shall have been printed. Nevertheless he should be unjust to his own observations no less than to records which he accepted as true, if he did not avail himself of the present opportunity to express his surprise at some of Dr. Nott's conclusions. First, in regard to the introduction of yellow-fever at Norfolk in 1855, and the subsequent year at Bay Ridge and Fort Hamilton. These epidemics, Dr. Nott tells us, were the extreme northern limits of the great epidemic of Rio in 1850, by the way of more southern ports, which Dr. Nott designated in advance, making Rio his point of departure. Dr. Bell regarded this progress of yellow-fever northward, in 1855–6, as part of the epidemic of our southern Atlantic and Gulf coast, from and subsequent to 1847, which he considered eminently portable, notwithstanding the opinion of, and evidence cited by, Dr. Nott to the contrary. Moreover, there was circumstantial evidence of the strongest character, going to show that that fever was taken from our shores to Rio, instead of from Rio to us, as argued by Dr. Nott. It will readily recur to all present, on mention, that during the Gulf epidemic of 1847–8, in the progress of the Mexican war, our commerce was unusually exposed, and a very large number of our vessels thereby became infected. Following close on this came the gold fever. Many of these same vessels, having never been thoroughly disinfected, entered into the California trade, and thronged with emigrants, proceeded by the way of Rio. And there, when the disease first appeared in 1849, as usual with yellow-fever, it was so unlike the genuine *vomito*, into which it culminated the following year, as to have been called by another name—the "polka." In 1851–2 the harbor of Rio was crowded with infected vessels, and many of these destined for the Pacific. How many of them arrived there still infected, and touched at places where yellow-fever soon after for the first time prevailed, it is, perhaps, impossible to ascertain. But some at least are clearly traceable. In about the middle of the year 1851 the steamer New World, on her way to California, touched at Callao, after having lost most of her crew by yellow-fever in Rio. The steamer Quito, also, was disease-bound in Rio during the same season, and with a new crew proceeded to the Pacific, and arrived in Callao in the spring of 1852. And about this time first appeared on that coast a peculiar form of fever which the natives called "pelusa," just as in 1849 the precursory form of fever at Rio was called "polka." From this nucleus the disease speedily developed into a perfect type of yellow-fever, and became domiciled. Nor were these the only evidences of the portability of the epidemic of 1847–8. Two vessels, at least, that had fallen under Dr. Bell's own observation, the United States frigate Cumberland, and the steamer Scorpion, both transported the Gulf fever of 1847 to New York in 1848, although it had been dormant on board for six months previous. On breaking out of these vessels at the Navy-yard, the disease declared itself among those working on board; and had the conditions of shore and climate been favorable, it would doubtless have been communicated to the people thereabouts in the same manner as it was communicated to the inhabitants of Pensacola by the Mississippi and Dale, from the same squadron, the year before. The Cumberland and Scorpion were put in quarantine until frost, when, as usual in such cases, they could be safely handled.

And here, too, Dr. Bell took another exception to Dr. Nott's conclusions—the "killing" of yellow-fever by a temperature of 32°. Dr. Bell much preferred *suspending* to killing, at that temperature, at least, unless it was kept up for a long time. Indeed, one of the most mischievous fallacies, in his judgment, connected with yellow-fever was the prevailing opinion that it was "killed" by a brief cold temperature. It suspended activity even at a much higher temperature than 32°, but it only awaited favorable conditions, and material to work upon, to revive again. In Vera Cruz the coming of the "northers" in November, with a temperature rarely lower than 48°, is hailed with as much joy as a black frost in New Orleans. But in neither case is the fever killed. And so too in regard to naval and other vessels sent to Boston or Portsmouth to "freeze out" during the winter. Who ever heard of the water freezing at the keelson, or even in the tanks of a man-of-war at Portsmouth, or, one might say, anywhere else? Why, they are carefully housed in, and these places, as also the filthy mud in the timbers of the ship, into which the poison of fever hides itself, are, by the depth of the hold and the thick planking, completely protected from a freezing temperature. But this is by no means the limit of this freezing fallacy. It is only about a dozen years ago since in *mid-summer* eleven tons of ice were put on board the United States steam frigate Susquehanna, in the quarantine of New York, to freeze her out, while the temperature of the water in which she lay was 70°. And this ship, by the way, furnishes an unusually good example of the style and nature of yellow-fever when completely circumscribed. In October, 1857, she was ordered from Spezzia to San Juan de Nicaragua, where she arrived in December, having touched by the way at Genoa, Madeira, and Key West. She remained in San Juan until the first of the following April, having had, during the whole period of time she lay there, a constantly increasing sick-list of precursory fever; at first intermittent and remittent, but all recovering until the latter part of March, when a case became malignant and died. She put to sea on the 1st of April, and on the 5th arrived off Port Royal, Jamaica, with over a hundred cases of yellow-fever. On sending most of them to the hospital at that place, she proceeded to New York, where she arrived about the middle of April with fifty cases more; was put in in quarantine, and treated in part as related. The remarkable feature in her case is, that at San Juan, where the Susquehanna lay, there was no yellow-fever, and the disease had never been known to occur there. But the Susquehanna had years before contracted the disease. It had long remained dormant, awaiting a favorable opportunity—congenial tempera-

ture, moisture, and susceptible material. And in this, also, is exemplified the peculiar liability of a ship, even above the most favorable conditions of shore, for the rise and spread of disease. A vessel is but a floating cellar at best. Ay, more; a cellar which is rarely or never thoroughly cleansed. Many there are now at our wharves whose forecastles are nests of the fevers that fill our hospitals, and ready at all times to communicate disease to congenial shores. It has been my province, Mr. Chairman, to have visited such vessels in yellow-fever climates and epidemics, and to have heard their officers abuse the ports and climates in which they were, while the quarters of their crews would have been disgraceful for pigsties.

Dr. Nott has cited a large and varied region of country over which yellow-fever has at various times extended, from which he seems to have drawn the conclusion that the conditions of its prevalence are frequently incomprehensible. But, Dr. Bell remarked, there are nevertheless certain conditions so uniformly present and necessary for the introduction of yellow-fever as to almost amount to demonstration. It is rarely or never introduced into any place which has not a continued temperature of about 80°, and usually, precedent moisture in conjunction with smouldering alluvium or other accumulations of organic matter undergoing decay. The varying conditions of climate and season render such places insignificant at one time, but deadly at another; but when once poisoned with yellow fever, whether the place be circumscribed, as in the case of an infected ship, a garrison, or a region of country, the duration of the poison is, to say the least, very uncertain, and its danger proportionate to its congeners. Doubtless the local atmosphere of a confined place, such as an emigrant ship or barrack, may become so contaminated by a healthy population as to be adapted to the introduction of yellow fever independent of the usual conditions, and such may have been the case at Gibraltar at the time cited by Dr. Nott, but such exceptions are, to say the least, equally common to all other epidemics, and are not to be regarded as true exceptions in the natural history of the disease under consideration.

In conclusion, Dr. Bell again expressed the hope that Dr. Nott's paper would soon be published, and be made the subject of discussion at a future meeting of the Academy.

Stated Meeting, December 7, 1871.

Dr. E. R. Peaslee, President, in the Chair.

The presentation of the Annual Reports being first in order, on motion, the Secretary read them by title, with the exception of the Reports of the Treasurer and Trustees.

The following nominations of officers for the ensuing year, to be voted for January 4, 1872, were then made: For *Vice-President*, Drs. Samuel S. Purple, S. T. Hubbard, Elisha Harris, and A. Nelson Bell, of Brooklyn; *Trustee*, Drs. H. D. Bulkley and Isaac E. Taylor; *Committee on Admissions* (two vacancies), Drs. Gouverneur M. Smith, Edward H. Janes, Frank P. Foster, and Isaac E. Taylor; *Committee on Medical Ethics*, Drs. John C. Peters and Alfred Underhill; *Committee on Medical Education*, Drs. Josiah C. Nott, Isaac E. Taylor, and Frederick A. Burrall.

Dr. Charles W. Packard was elected Resident Fellow.

The President announced that the Trustees of the American Museum of Natural History, old Arsenal Building, in Central Park, had decided upon Mondays and Tuesdays as private reception days. Tickets, for Fellows of the Academy and their families, may be procured at the office of the Department, No. 265 Broadway.

Dr. Bell introduced Dr. L. S. Pilcher, of the U. S. Navy.

The President announced the receipt of the Proceedings of the Royal Chirurgical Society of London, and other medical works.

The discussion of the Natural History of yellow-fever was then declared in order.

Dr. John C. Peters spoke as follows: Mr. President and Fellows of the Academy—As no one seems willing to commence the discussion, I will volunteer. In the first place I would like to exhibit a map of the course of yellow-fever in the United States Army in 1867. Although I have always been advocating the portability, communicability, and ever-contingent contagiousness of yellow-fever, yet the greatest and most positive light which I have ever received from my personal observations and readings came from the report on epidemic cholera and yellow-fever in the U. S. Army during 1867.

I had previously suspected that tropical and Southern physicians knew very much less about the disease than they thought they did; and became very willing to accept Dr. Warren Stone's estimate of his own knowledge, viz., that the more he saw the less he knew. Even Dr. Nott, in his interesting paper on the pathology of this disease in Mobile, in 1843, has apparently been mistaken in six cases out of eight; and in 1844, in four cases out of eight (see Bartlett on Fevers, p. 441).

In 1867 the Southern officials and physicians were so satisfied about the indigenous origin of yellow-fever that they established no quarantine regulations against vessels arriving from the infected ports of Havana and Vera Cruz. In May, twelve vessels arrived; in June also twelve, and in July eight.

In the absence of a vigilant health board the precise details of the first outbreak of the pestilence in New Orleans will probably never be known; but it is probable that the barks Jessie and Florence Peters introduced the first cases. This thoughtlessness or ignorance led to 1,349 cases and 428 deaths among the U. S. white troops; 171 cases and 25 deaths among the colored; and 31 cases and 10 deaths among our noble little band of army surgeons.

The history of the introduction of yellow-fever in the city of New York has always been equally positive and clear. I have private written memoranda from old inhabitants, kept at the time, from 1800 to 1807. In 1799 there were before July 260 cases at the Marine Hospital at Staten Island, a great portion of which came from vessels arriving from the sickly ports in the West Indies. It next broke out near Old Slip, and was at first confined to the streets in that neighborhood. Among other vessels the ship Fame arrived with yellow-fever on board; of seven persons who discharged her damaged and putrid cargo at Old Slip, and pumped out her bilge-water, which was so offensive that the neighbors had to shut their windows, not one escaped severe sickness, and two died. Many of the boatmen whose vessels lay in Old Slip fared no better, a number of them falling victims to the stench or contagion. The nearest house had five sick and two deaths; in the next house three sickened at one time, and one died.

In 1803 there were 1,639 cases and 605 deaths in New York. The first cases were reported from Coffee-House Slip, but Dr. Muller, the resident physician, says the disease was soon found in many other parts of the city, and fewer places remained exempt than on any other former occasion. Broadway and some adjacent

streets retained their healthy character; but the streets lying near the margins of the North and East Rivers, and some of those lying in the upper parts of the city, inhabited by the indigent, uncleanly, and dissolute classes, suffered the worst ravages of the disease. The disease did not reach the North River until infected shipping removed it from the East River. None of the physicians or medical attendants in Bellevue or Quarantine Hospitals were attacked. The nurses often slept in the same bed with the sick; and sometimes waked up to find their patient dead, yet did not sicken.

Dr. John R. B. Rogers, Health Officer at Staten Island in 1805, says there were always from 40 to 60 vessels, from June to October, which had lost some one or more of their crews by yellow-fever; and 24 of them came up to the public wharf at Staten Island; in those pure waters none of those who threw out the ballast, cleaned their timbers, etc., or any of the pilots attached to the Health Office, or the physicians, were attacked. But some were who went up into the poisoned air of the city.

Dr. Rogers was, of course, certain that it did not come from any neglect of duty at Quarantine, and says "nor did it come through that channel;" but it did.

Dr. Peters then quoted the opinions of Drs. Hosack and Edward Muller in regard to the preceding epidemic, and spoke extendedly of the celebrated epidemic of 1822, of which he had often heard his grandfather and other old citizens speak.

It is not true that yellow-fever was confined to the Rector street district in 1822; there was a Lombardy street epidemic which originated from the ship Superior from New Orleans; one Cary, who had been sick of yellow-fever in New Orleans and came in said vessel, went to the house of his mother in Lombardy street about Sept. 14, when Mrs. Mott, Mrs. Snow, and Mrs. Cary sickened, and all three died of yellow-fever. There were 1,236 deaths in New York.

As regards the means by which the disease is disseminated, we need only recollect that the blood often oozes from the gums, lips, and nose; the hands are often stained with blood, and the bed and bedclothes not unfrequently strewed with black vomit, with offensive discharges from the bowels and kidneys, so that the patient, in the worst cases, half gathered up and covered under the bedclothes, presents a peculiarly horrifying and appalling aspect, which once seen leaves an enduring impression on the observing mind.

The diagnosis from malignant, biliary, and congestive fevers is often difficult, and Southern physicians are often more perplexed than any others; I may say in particular of Dr. Warren Stone that he knows less of yellow-fever than any other physician who has seen so much.

Besides the three ordinary varieties of yellow-fever, which only differ in intensity and malignity, the Algic, Sthenic, Hemorrhagic, Purpuric, and Typhous forms are well known and described by Lyon.

I took great interest in the epidemic of 1856 in our bay, as I had a mother, sister, several nieces, and other relatives and many friends living on Staten Island, and some friends and patients on Long Island, near Fort Hamilton; there I saw Mr. Chandler White, whose case has many points of interest.

Dr. Nott said it was an open question whether there were two forms of yellow-fever. To show its non-contagiousness, he stated that nobody ever took the fever when patients were carried from one point to another. If five hundred cases of the disease were to break out in Rector street, New York City, not one of these patients would give the fever if all were carried to St. Luke's Hospital; it cannot be propagated by contact. He thought that a germ would sometimes produce yellow-fever, but did not believe that it could be originated in the system. Dr. Warren Stone, and other Southern practitioners even went so far as to assert that it is non-portable.

Dr. Bell, in alluding to Dr. Nott's paper, remarked that yellow-fever was carried to Norfolk by the steamer Ben Thomas. In showing its non-contagiousness, he mentioned the case of the surgeon of the Gomer, who slept with a dead man under bed-clothing covered with black vomit, without contracting yellow-fever. In reply to Dr. Nott's reflections on army and naval surgeons, Dr. Bell said they had done more to develop what was known concerning the history of yellow-fever than resident Southern physicians. He thought the theory of non-contagion would be bound out by the observations of Drs. Harris, Walser, Pilcher, and others.

Dr. Gouverneur M. Smith remarked: While agreeing with the gentleman who has just sat down in ascribing honor to the medical officers of the army and navy for the valuable facts which they have established in relation to yellow-fever, nevertheless it should not be forgotten that, nearly half a century ago, medical science was enriched by data, through the efforts of a gentleman in civil life, which contributed more toward settling certain questions relating to the pestilence than perhaps have any others which have been promulgated by investigators since his time.

Reference is made to Dr. Chervin of Paris. This gentleman, animated by an intense enthusiasm in the study of the mysteries of yellow-fever, relinquished his practice and expended his patrimony while travelling in pursuit of such knowledge, for a period of eight years, and over an area of 37° of latitude. He visited all the colonies of France, England, Spain, Holland, and Denmark, and, crossing the Atlantic, traversed our own continent from Portland to New Orleans, wherever yellow-fever had prevailed in this country. The medical profession of this city received him with hospitality, and aided him in his important labors, as did also his professional brethren throughout his entire journeyings. At home and abroad his services have always been regarded by the highest authorities as heroic in their conception and as most practical in their results.

He prominently exhibited the fact that the yellow-fever which prevails on this continent is the same pestilence, essentially, as that which is recognized as yellow-fever in other parts of the world, and gathered incontestable proofs that the disorder was not contagious. It is unnecessary to repeat at length at this time the various views entertained by Chervin and some of the older investigators, for they have been fully presented to this Academy on a former occasion, in 1859, by a Fellow now deceased.

We are to this day, both in the management of cases of yellow-fever and in our quarantine regulations for excluding the disorder, guided in no small degree by the conclusions of the distinguished French physician to whom allusion has been made. While duly recognizing the valuable services of many recent laborers, we are not to overlook those of our predecessors. The contemporaries of Chervin universally regarded him as a unique savant and philanthropist, and at this time we can hold him in no less regard.

Dr. Austin Flint, Senr., congratulated Dr. Nott for putting his views on record, especially his ideas on the non-communicability and the portability of the disease. According to his judgment the theory of non-contagion is not an open question, that claim having been well-established. Precisely the grounds proving

the non-contagiousness of yellow-fever were applicable to epidemic cholera.

Dr. Elisha Harris believed that when the essential cause of yellow-fever was known, then the explanation of its portability could be explained. The experience of Chervin was personally conclusive as to its non-contagiousness. The transmission of the disease is not as yet within our grasp in the literature of our times. In showing the eccentricity of this disease he stated that in September, 1865, the bark Hecla arrived in the town of Swansea, South Wales, loaded with iron from Cuba. At the date of arrival one case of yellow-fever occurred; between that date and October 4th, nineteen marked cases occurred, and six not well declared; of these twenty-five cases, sixteen patients died on soil where it had never before existed. No one who attended on these cases died, or had the fever. In this case a very high temperature was wanting for the development of the fever. These cases occurred among the people of Swansea.

When yellow-fever happens between the first of June and the first of October, we must take knowledge of the fact that there is danger, and must have some certification of the facts before we can judge of the transmission. Last year it was planted on the clean, well-policed Governor's Island; also in 1856, striking first Mr. Chandler White, Gen. Stanton, and Judge Rockwell, on Bay Ridge, Long Island.

As commerce has such large claims, he believed there was no higher duty than to study the history of the disease. By accurate discrimination of the nature of the disease, it may be possible that in the future commerce will be little infringed upon. Enough has been learned that, if the Board of Health had an absolute control of quarantine, the disease could be kept out. But as the matter of quarantine is situated, New York will not be protected.

He exonerated the Quarantine Commissioners, especially Dr. Bell, one of the Commissioners, and thanked Dr. Nott for his views just promulgated.

Dr. Pilcher, U. S. Navy, being called upon by the President, said that it would be a work of supererogation to remark further, as the subject had been so well discussed.

Dr. Walser remarked that there were three types of yellow-fever, namely, the purpuric, remittent, and typhoid.

Dr. B. S. Thompson, in closing the discussion, alluded to his paper on "The Yellow-fever Epidemic at Key West, Florida, in 1864"—which epidemic came under his personal observation—published in the Medical Record of August 1, 1868, showing the *portability* and *non-contagiousness* of the fever. The wilful or careless importation of infected clothing and other merchandise from Nassau, New Providence—a portion of which was publicly sold in the city of Key West—was thought to be the cause of this epidemic. The first patient had purchased a saddle and accoutrements from this cargo, and very soon was stricken down with the fever and died within three days. The epidemic at Key West, in 1867, was imported directly from Havana, the usual starting-point.

He referred to the peculiar, indescribable odor emanating from yellow-fever patients, which is distinguishable on entering the sick-room or ward of a hospital. This feature has also been corroborated by Dr. Harvey E. Brown, Asst. Surg. U. S. A.

In his experience, patients who could not be restrained in going from one unoccupied bed to another in the ward—which is a mania with yellow-fever patients—invariably died. And when colored patients began to talk excitedly and incoherently about religious topics and ejaculate prayers, the burial permit was ordered to be filled out, as they generally succumbed.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, November 22, 1871.

Dr. A. L. Loomis, President, in the Chair.

MEDULLARY SPINDLE-CELL SARCOMA.

Dr. Sands presented a large axillary tumor, removed by operation from a gentleman fifty years of age, who had become violently insane, the result mainly of apprehensions in regard to an operation. He was an inmate of the Bloomingdale Asylum for some months, and it was the opinion of Dr. Brown that the mania was of such a character as almost to preclude the hope of recovery. The patient did, however, improve, and the operation was performed.

The tumor was situated in the right axilla, nearly vertically beneath the shoulder-joint, but extended farther behind than in front, so that it overlapped the back of the scapula to the level of the spine. Its longest measurement was from the spine of the scapula downwards and forwards beneath the arm, being ten and three-quarter inches. The vertical measurement, extending from the top of the axillary cavity to the side of the chest, was seven and a half inches, and the horizontal measurement was nine and a half inches.

These measurements were made on the sixteenth of last July. The tumor was soft to the feel, but not fluctuating, and there were some blue veins scattered over the surface. As the tumor grew rapidly, carcinomatous disease was feared. During his stay in the asylum, the tumor, as was shown by measurements taken ten days before the operation, had increased an inch in size in every direction.

The operation was somewhat prolonged, on account of the softness of the tumor, and the fact of so great a portion underlying the great pectoral and the latissimus dorsi muscles. The patient made a good recovery, there being no suppuration except in the immediate track of the ligatures. The patient recovered entirely from his mania.

The tumor was examined by Dr. Edward Curtis, who pronounced it a medullary spindle-cell sarcoma undergoing fatty degeneration. Dr. Sands believed that such a tumor in such a situation was of very rare occurrence. About ten ligatures were used, but no large vessels were tied.

POISONING BY PRUSSIC ACID.—EROSION OF MUCOUS MEMBRANE.

Dr. Finnell presented a stomach from a man supposed to have been poisoned by Prussic acid. There was a distinct redness of the mucous membrane of the organ; but the point of interest was a marked extravasation of blood at one point, giving the appearance as if the mucous membrane had been eroded.

CARCINOMA OF THE TESTICLE IN A CHILD AGED SIXTEEN MONTHS.

Dr. Francis V. White presented a tumor of the left testis of a child 16 months and 14 days old, removed post-mortem. His attention was called to the case March 10, 1871. The enlargement was about the size of a hen's egg; had been observed about two weeks. The diagnosis was hydrocele, the sac being distinctly

translucent when tested by the lighted candle in a darkened room. Local treatment to July was futile; it steadily enlarged to the size of a goose-egg. In the latter part of June another medical gentleman was called in, whose diagnosis was hæmatocele. Puncturing the sac was not permitted. The last local application was an ointment of iodoform, which had the credit of reducing the size found at death.

There was no marked constitutional disturbance till the latter part of the summer, when he had derangement of his alimentary canal, occasional vomitings, diarrhœa, and paroxysms of pain. His appetite was capricious.

Sept. 7.—On his return from the country his condition pointed to malaria. The 14th, a tumor in the left umbilico-lumbar region was observed. There was no hæmaturia. He died October 3d from exhaustion.

The autopsy revealed a solid tumor of the left testis; no adhesions, no hydrocele, the fluid probably absorbed. Upon opening the abdomen the lymphatics were found enlarged and diseased (the inguinal glands were not). The greater omentum was studded with white deposits. The peritoneal cavity was markedly free from fluid. A tumor of the left kidney occupied the greater portion of the left abdomen, encroaching on the right. The descending colon was in front. The tumor appeared in two divisions—one transverse, the other longitudinal; its color was a dark mahogany. The ileum passed through the mass. In endeavoring to remove the mass intact, it bursted, discharging a viscid mass of blood and broken-down tissues. It would have weighed two pounds or more. The small intestines occupied the right abdomen; there were a number of invaginations. Nothing particularly noteworthy of the other viscera, abdominal or thoracic.

At the close of the special meeting of this Society, Oct. 4th, I presented informally for observation, the testis, the remains of the kidney, and other of the viscera, etc. In the fresh state, Dr. Markoe called the disease of the testis encephaloid. He had seen this disease of the testis as early as six months of age.

In conclusion, he stated his belief there was in connection with the disease a hydrocele, which was absorbed about two months previous to death. It was unnecessary to state different theories discussed in consultation. The ancestral record, as far as traced on both sides, was good. Malignant disease was thought out of the question. The autopsy and the microscope presented the case in its true light. As the result of his experience he was led to believe that malignant disease of the kidney and testis was quite rare at that age. West gave three cases of the kidney; Tanner selected one case of a child thirteen months, where both kidneys were diseased, the two weighing five pounds. Forster, Holmes, and Pemberton state that malignant disease of the testis is rare in children. He quoted from Pemberton on Surgical Cancer, p. 60: "Encephaloid cancer of the testicle attacks at any age. The surgeon's attention will be called when the sexual functions are in their fullest activity, between thirty and forty years. Not unfrequently hydrocele of the tunica vaginalis, before the tunica albuginea gives way." He gives four cases, viz.: aged severally 43, 32, 36, and 25 years old. *No children.* "Encephaloid cancer of the testicle, in its earliest stages, may be mistaken for, 1st, hydrocele; 2d, hæmatocele; 3d, scrofulous disease; 4th, syphilitic disease; 5th, cystic disease." The author advises puncture before operation.

It may not be out of place to state that a number of authors on diseases of children have nothing on malignant diseases of the kidney and testis.

Dr. Janeway, who examined the specimen microscopically, made the following report:—

Examination of portions of testicle and omentum from specimen presented by Dr. White.

The testicle showed an irregular lobulated arrangement, owing to the development of its connective tissue trabeculæ. The fresh-cut surface presented a soft reddish gray, varying to white basis substance, in which a few cysts were visible to naked eye. At one part the tumor presented a yellow appearance.

Microscope.—The new formation is composed of a connective tissue stroma, with blood-vessels forming irregular-shaped alveoli of varied size. They are in some parts filled with cellular elements, round or polygonal, from the size of a white blood-globule to two or three times as large. In other parts the cellular elements are more scanty, and there is apparently fluid in the alveoli; and in a few, a change of cells to a sort of colloid variety may be observed. The yellow portions showed the cells in a state of fatty degeneration. The fluid in the cysts was precipitable by acetic acid (mucin). The tumors of the omentum were white, soft, easily lacerable. They were formed of well-marked alveoli, packed with cells of similar character to those in the testicle. The stroma in some parts was scanty, and contained in many places well-developed spindle-shaped cells.

Dr. Hamilton had seen two cases similar in character to the one presented by Dr. White, and which, from their progress and their clinical histories, he assumed to be colloid. Both of these presented many of the aspects of hydrocele. He believed that the size of the tumor was of great diagnostic value in the case of infants, as he had never seen such of any considerable magnitude which did not have a malignant type.

Dr. Sands was surprised to hear that the translúcency of the sac was so marked. He had always been inclined to think that the test, especially in infancy, was thoroughly trustworthy as making up the diagnosis of hydrocele. He agreed with Dr. White, however, that at first it must have been nothing more than pure hydrocele, the result of commencing disease in the testis.

CANCER OF COLON.

Dr. Loomis presented portions of the colon, cæcum, and ileum removed from a male patient of Bellevue Hospital, who was admitted Oct. 25. The patient had always been a hard-working man, was temperate, had never had syphilis, and was in the enjoyment of good health until within two months of his admission, when he became subject to attacks of very severe colicky pains radiating from the epigastrium. These pains would last for a few seconds at a time, and seemed to be relieved by firm pressure. Four weeks before his admission, while examining his abdomen, the patient noticed a tumor in the right inguinal region, which had the feeling of a rubber ball, was oblong, and during the examination it seemed to separate into two parts. Very soon after this handling the patient passed a quantity of blood per rectum. He never had vomiting to any marked degree, but occasionally suffered from diarrhœa. From the time he made this examination he said the side became very painful. He began to lose flesh and strength, and when he came under observation in the hospital he was very anæmic. Examination of the abdomen revealed a tumor in the right inguinal region, having its upper border about an inch below the free border of the liver, extending downwards about three and a half inches. This tumor was about two inches and a half in transverse measurement. Soon after his admission, a drastic purgative

was administered, and the tumor was lost at a subsequent examination. About this time Dr. Loomis presented the case to the class at the hospital, and went over it pretty thoroughly as a matter of diagnosis. He found that the tumor was elastic to the feel, that it corresponded in situation and shape to the ascending portion of the large intestine, was somewhat movable, was dull on percussion—except over its most prominent portion, which was tympanitic—was smooth, and had somewhat the feel of a floating kidney. The fact of the tumor having disappeared after a cathartic, brought up the probabilities of impacted fæces; but such a condition was excluded, from the fact of the mass not receiving an indentation as such tumors usually do. The diagnosis of cancer of the ascending portions of the large intestine was at length made.

At the autopsy a tumor was discovered in the right inguinal region corresponding in situation to the swelling found before death. This tumor involved the colon, cæcum, and ileum. It was about three inches in length and two and a half inches in breadth. It seemed to have been developed from the submucous tissue, and it encroached so much upon the calibre of the gut as to leave but a very small opening between the ileum and colon. The diseased formation was uniformly deposited throughout the circumference of the intestine, and was undoubtedly cancerous in character.

The Society then went into Executive Session.

Correspondence.

THE BROMIDES IN DROPSIES.

To the Editor of the Medical Record.

Sir—I take it that very few medicines have had such general use and commendation as the bromides. The time that they have been in the hands of the profession is very brief, yet all sorts of properties have been ascribed to them, and their virtues in many different complaints have been lauded. But among all the varieties of conditions under which their administration have been advised, I do not recollect to have seen any allusion to their value in the dropsies, until by accident I tried them.

In the winter of '69–'70, whilst teaching a class of students in the wards of the Savannah Hospital, I had under observation a well-marked case of morbus Brightii. The patient was a young man of 27 years, and apparently had once possessed a good constitution. Six months before he had begun to lose flesh and strength, and a month or two before his feet and abdomen had commenced to swell. He was now generally dropsical, and what was more distressing, the lung tissue was œdematous, producing very laborious breathing, so much so that death seemed imminent. Whilst on my rounds one morning, and witnessing the dreadful suffering of this patient, which was not relieved by anything that had been done, Dr. Newman (at that time my clinical clerk) suggested the trial of bromide potass. I ordered fifteen grains every three hours, until its effect was seen. The beneficial effect was marked almost from the first dose, and in a few days he was up walking around, with his legs reduced to almost their natural size, and the abdomen very much diminished. I kept this patient under the influence of this remedy for several weeks, and discharged him greatly relieved—I may say cured. The albumen had almost entirely disappeared from the urine, and the casts and epithelial deposits were entirely gone. Since that I have used it in every variety of dropsical condition, and nearly always with good results. In several cases of ascites with anasarca, have had the fluid to disappear under its use in a marvellously short time. I have related my experience to other medical men of this city, and learn from them that it has been used by some of them with the same good results. I have no theory as to its operation further than to say that it increases the diuresis.

Yours, etc,
J. G. Thomas, M.D.

Savannah, Ga., Dec., 1871.

Obituary.

HENRY D. BULKLEY, M.D.,

new york.

Henry D. Bulkley, at the time of his decease, was in his 68th year. He was born April 4, 1804, at New Haven, Conn. After the usual preliminary rudimentary education, he entered Yale College, and graduated there in 1821. He entered upon the study of medicine in the Medical School attached to that University, under the preceptorship of Dr. Jonathan Knight, and in or about the year 1830 received the degree of M.D. He came to New York in the year 1825, and engaged in mercantile pursuits here for eight years previously to entering on the study of medicine. He returned to it in 1833, and remained in it, in extensive practice, until his decease. At the period of the entrance into professional life of the author of this sketch, he was physician, a post which he obtained in 1834 and continued to hold for several years, to the City Dispensary in Centre street, in the class of Skin Diseases, and was already renowned as an expert and high authority in these diseases, both as to diagnosis and treatment. This was his hobby, and he rode it till his death; never, however, allowing his specialty to be tainted with the slightest suspicion of charlatanry. In the Dispensary he gave clinical lectures and demonstrations, and contributed much towards diffusing a knowledge among the rising members of the profession, of these complex and troublesome ailments.

He was also connected, a little later, with the movement originated in the College of Physicians and Surgeons, of a course of Spring Lectures, and continued for some years to lecture to gratified audiences on his favorite theme; and he was further concerned in two other private institutions for the gratuitous treatment of the poor afflicted with cutaneous disorders. Later still, in 18—, his well-recognized zeal and devotion to, and eminence in his profession, procured him the appointment of Attending Physician to the New York Hospital, in which he continued until the discontinuation and destruction of the Institution in Broadway, faithfully to perform the duties of his position, and expound his doctrines on his favorite subject, and the cases under his care. In 1867 he was elected President of the County Medical Society. In 1869 he was successful in obtaining the Presidency of the New York Academy of Medicine, an honor which he greatly coveted and enjoyed. He had been an early member and warm friend of the Institution, and during the term of his office displayed unwonted zeal in contributing to its success; always succeeding, by dint of appeal and persuasion, in filling the rostrum with able and instructive essayists; and presiding at the meetings with admirable talent and urbanity. He occupied also, at intervals, the Presidential Chairs of the Widows and

Orphans' Society, the Medical and Surgical, and Dermatological Societies. His literary achievements were not great. He edited Cazenave and Schédel on Diseases of the Skin; and was for some time editor of the *N. Y. Medical Times.*

In the month of June succeeding to his laying down his functions, finding his health impaired, he made a short but very enjoyable trip to Europe, whence he returned in improved health, good spirits, and was contemplating a return to active business engagements, with prospects of a long duration of usefulness, when suddenly stricken down by the fell destroyer, who so unscrupulously thwarts the purposes of men, under the fiat of that Divinity which "shapes our ends, rough hew them as we may."

He had suffered from a cold during the week, but visited a patient on the Saturday night preceding the Monday on which the pneumonia declared itself, involving both lungs; which, despite the most vigorous efforts of his able medical friends and attendants, Drs. Wm. H. Draper, Austin Flint, Sr., and Alonzo Clark, ran rapidly to a fatal termination, Jan. 4, 1872. He retained his consciousness till about six hours previous to his death, and sank from exhaustion.

Dr. B. married, in 1835, Miss Julia Barnes, of Oneida Co., N. Y., who survives him, and by whom he had six children, four of whom are living, two daughters and two sons; one of whom has followed the profession of his father, with high promise of future eminence.

From the simple, but feeling and forcible eulogium pronounced from the pulpit by his pastor, the Rev. Dr. Crosby, we learn that Dr. Bulkley in his youth remembered his Creator and his Saviour, and when he was old and dying did not depart from them; and commenced in early life to make provision for the Life Eternal beyond the grave. Soon after settling in New York he united himself with the Presbyterian Church, and at the time of his death was in full communion and membership with the Sixth Presbyterian Church, in Fourth Avenue, and a partaker in its sacraments. From his pastor we also learned, that from the commencement of his illness he apprehended its fatal termination. He had closed his worldly accounts for the year, and set his house in order; and it is fair to believe that he departed willingly, and in peace with God, and fellowship and good-will with all mankind. Dr. Crosby spoke of his generous sympathy with all; of his kindness to the sick, and of his moral and social excellence.

We of the profession know that he was erudite, a skilful physician, upright and honorable in his dealings: an honor to his calling. He had, that we know of, no enemies; and we know that he had many friends. His pastor observes that the memories of good men are the legacies of the Church; those of good physicians are the legacies of Medicine. We can emulate his virtues and examples. Others will come in to fill his place, and the world will keep on moving. But we may rest assured that among his contemporaries, and for at least a generation to come, his name will be remembered with affectionate reverence, and his memory kept green. His complexion was pale; he was of medium size and stature; grave, but not opposed to innocent jocularity; of pleasing manners, and it may further be said of him, that his modesty was equal to his merit.

At a stated meeting of the New York Academy of Medicine, held January 4th, 1872, Drs. William C. Roberts, James Anderson, and Gouverneur M. Smith were appointed a committee to take action in reference to the death of Dr. Henry D. Bulkley, and, in accordance with such appointment, presented the following Preamble and Resolutions, which were unanimously adopted:—

Whereas, It has pleased an All-wise Providence to remove by death Dr. Henry D. Bulkley, late Trustee and former President of the New York Academy of Medicine, after a brief illness:

Resolved, That this Academy is called upon to mourn the loss of a Fellow who was early identified with its interests, and to the close of his life active in the promotion of its welfare.

Resolved, That in the various official positions to which he was elected by his colleagues, he has exhibited pure integrity of character, and contributed by his assiduous labors in elevating the Academy to its present position among scientific associations.

Resolved, That his contributions to medical literature, enriched as they were by practical conclusions derived from clinical observation in hospitals and infirmaries which he had long and faithfully served, will remain permanent monuments to his professional industry and ability, especially in the department of cutaneous medicine, to which he had particularly devoted himself, and in which he had long been considered an expert.

Resolved, That while this Academy thus bears witness to his eminence as a physician, it also records its recognition of the fact that both in his public and private life he exhibited the traits of character which conspicuously mark the Christian gentleman.

Resolved, That as a tribute of respect to his memory, the Fellows of this Academy attend his funeral on the 7th inst., and that a copy of these resolutions be presented to his family, and published in the medical and daily journals.

EDMUND R. PEASLEE, M.D.,
President.
WILLIAM S. WHITE, M.D.,
Secretary.

At a special meeting of the Medical Society of the County of New York, held January 7th, 1872, at the Chapel of the Fourth Avenue Presbyterian Church, the following preamble and resolution, introduced by Dr. William C. Roberts, were unanimously adopted:—

Whereas, It has pleased the all-wise Disposer of human events to take unto Himself the soul of our departed friend, associate, and professional brother, Henry D. Bulkley, M.D., therefore,

Resolved, That while expressing its profound sorrow at the severance of the tie that has so long bound them, the Medical Society of the County of New York is desirous of placing on record its high appreciation of Dr. Bulkley's services as its former President, his eminence as a practitioner of medicine, and his virtues as a Christian and a man.

Resolved, That Dr. Bulkley's life-long labors in the cause of medical science as an editor, writer, teacher, and as physician to the New York Hospital and to several other charitable and benevolent medical institutions in this city, have entitled his name to be long and affectionately cherished in the memories of his professional brethren and of the public; while his erudition, genial courtesy, and strict integrity and observance of medical ethics had acquired for him the respect and esteem of all who knew him.

Resolved, That in the demise of the late Dr. H. D. Bulkley, this society and the profession generally are called upon to mourn the loss of a distinguished member, and the public of a righteous man, a kind friend, and faithful servant and physician.

Resolved, That a copy of these resolutions be transmit-

ted to the family of the deceased and published in the medical and daily journals.

ABRAHAM JACOBI, M.D.,
President.
BRADFORD S. THOMPSON, M.D.,
Corresponding Secretary.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department U. S. Army, from December 19th, 1871, to January 4th, 1872, inclusive.

FRANTZ, J. H., Surgeon.—By S. O. 479, War Department, A.G.O., Dec. 30, 1871, granted leave of absence for 30 days, with permission to apply for an extension of sixty days.

BREWER, J. W., Assistant Surgeon.—By S. O. 225, Department of the Mo., Dec. 16, 1871, to report in person without delay to the Medical Director of the Department.

MACKIN, CHAS, Assistant Surgeon.—By S. O. 473, W. D., A. G. Office, Dec. 19, 1871, granted leave of absence for sixty days from Nov. 28, 1871.

CRONKHITE, H. M., Assistant Surgeon.—By S. O. 261, Department of the South, Dec. 16, 1871, to proceed to Spartansburg, S. C., for duty at that post.

WILSON, Wm. J., Assistant Surgeon.—By S. O. 226, Department of the Mo., Dec. 18, 1871, to proceed without delay to Fort Union, N.M., for temporary duty at that post.

Medical Items and News.

SMALL-POX is on the decline in this city and Brooklyn.

DR. ALEX. N. GUNN, formerly Health Officer of this port, died December 22d.

DR. WILLIAM C. DEWITT, of Saugerties, N. Y., died suddenly at the bedside of a patient, December 26, aged seventy-six. He practised his profession for nearly half a century in his native county of Ulster, and he always enjoyed the reputation of being ever ready at all times, in all weathers, and over all sorts of roads, to answer the calls of the suffering. Of him can truly be said, "Well done, thou good and faithful servant."

JAPANESE STUDENTS.—Sixteen Japanese students have this year matriculated in the University of Berlin, most of whom are attending the medical department; some are students of jurisprudence and natural science.

DIABETES, LACTIC ACID, AND RHEUMATISM.—Early in the year we referred to the views of Dr. Cantani, of Naples, on the treatment of diabetes with lactic acid, and it is of interest to note that Dr. Foster, of Birmingham, who has been experimenting in the use of this remedy, has found that it has, in one case, repeatedly provoked attacks of acute articular rheumatism.

M. NÉLATON.—It is rumored that this eminent French surgeon is to settle in London.

VEGETABLE SOURCE OF CARBOLIC ACID.—Mr. J. Broughton, quinologist to the Indian Government, states that from the essential oil of a common hill-plant —the *Andromeda Leschenaultii*—he finds that a very pure carbolic acid may be prepared, at a cost which is slightly in excess of what it may, in ordinary seasons, be obtained in England.

PRIMARY AMPUTATION OF THIGH IN A CHILD ONE YEAR AND A HALF OLD, with recovery and discharge from hospital in good health on the forty-first day, is recorded in *The Lancet* of Dec. 2d.

THE THIRD VOLUME of the late Sir James Y. Simpson's works, comprising Diseases of Women, and completing the series, will appear early in January.

THE BALTIC UNIVERSITY, at Dorpat, where Bidder and Schmidt made their researches on digestion, and Owsjannikon on the spinal cord, is about to be removed to Velna, in accordance with the Russianizing policy, in order to remove it from the German influence of the former place.

A FEMALE BONE-SETTER named Dal Cin, a native of Northern Italy, is creating considerable excitement in her own country and in Austria, where she now is. In Vienna the excitement bid fair to rival that awakened in Paris by the Zouave Jacob; but the government granted her permission to practise only in the presence of a regular physician, and an investigation of her mode of procedure by four professors of the University exposed the fallacy of her claims to any knowledge of affections of the joints whatever, and it is said she now purposes going to England.

AMERICAN OTOLOGICAL SOCIETY.—The Transactions of the Fourth Annual Meeting of the American Otological Society, 1871, contain the following interesting papers:—Report on the Progress of Otology, by Albert H. Buck, M.D., N. Y.; A Case of Cornu Humanum of External Ear, by the same author; Necrosis of Mastoid Cells in Immediate Neighborhood of External Auditory Canal, by Charles Laight, M.D., N. Y.; A Case of Nervous Deafness in which Galvanism was used Unsuccessfully, by Robert F. Weir, M.D., N. Y.; Some Cases of Polypus and their Treatment, by Dr. Seely, of Cincinnati, Ohio; Parasitic Growths in the External Meatus, by Clarence J. Blake, M.D., of Boston, Mass.; Abscess of the Cerebellum following a Blow upon a Diseased Mastoid Process, by Wm. W. Morland, M.D., of Boston, Mass. Drs. H. N. Spencer, of St. Louis, Chas. Inslee Pardee, N. Y., O. D. Pomeroy, N. Y., R. M. Bertholet, Philadelphia, and J. Orne Green, Boston, also contribute valuable and scientific papers.

This flourishing Society may be congratulated upon this collection of otological papers, so well revised and condensed by the indefatigable Secretary. The present officers are as follows:—*President*, Dr. H. D. Noyes; *Vice-President*, Dr. E. L. Holmes; *Secretary and Treasurer*, Dr. J. Orne Green; *Publishing Committee*, Drs. R. F. Weir and C. E. Hackley; *Committee on Progress of Otology*, Dr. C. J. Blake.

THE RELATIONS OF EPILEPSY TO INSANITY AND JURISPRUDENCE.—These subjects and their relations are well discussed by W. J. Conklin, M.D., Assistant Physician of Southern Ohio Lunatic Asylum, Dayton, Ohio, in an extended paper read April 6, 1871, before the Ohio State Medical Society.

PURULENT INFLAMMATION OF THE MIDDLE EAR.—Dr. Albert H. Buck, of New York (*Trans. of the American Otological Soc.*), in his "Report on the Progress of Otology," speaks of the three new plans for treating obstinate cases of purulent inflammation of the middle

ear:—*First*, the use of absolute alcohol, revived by Dr. F. E. Weber, of Berlin. *Second*, the very thorough cleansing of the cavity of the tympanum, viz.: by the methods of Drs. E. Van Millingen and Lucæ. *Third*, that recommended by Dr. Hinton, of London, which consists in passing a continuous stream of water from the external meatus into the tympanum, so out through the Eustachian tube and nostril.

Dr. Buck states that the use of absolute alcohol has been tried at the New York Eye and Ear Infirmary, but not with the satisfactory results claimed for it by Weber. Hinton's plan seems to be a most rational mode of treatment; in fact, the only one where a thorough application of the remedial agent can be counted on.

Medical Institutions of Dublin.—Jos. Taber Johnson, M.D., Washington, D. C. (*National Med. Journal*), in an address on the "Medical Institutions of Europe," speaks of the six medical colleges in Dublin and sixteen hospitals, while the population of the city is only 300,000. The hospitals are mostly for the treatment of special class of cases. Thus there is a children's hospital, one fever hospital, two for surgical cases, an eye infirmary, two general hospitals, two lying-in, and one lock hospital.

Unusual attention is given to cleanliness in the treatment of the diseases of females in Dublin. In every case of vaginal examination which occurs in the lying-in hospital, a stream of hydrant water is made to play upon the cervix uteri until all impurities are washed away, leaving a perfectly clean os in the field of the speculum for inspection.

Trismus Nascentium.—According to James S. Bailey, M.D., of Albany, N. Y. (*Am. Jour. of Obstetrics*), trismus is now rarely observed in temperate climates, except in foundling and lying-in hospitals. In a paper by Dr. Joseph Clark, read before the Royal Irish Society, in 1789, on its occurrence in the Dublin Lying-in Hospital, up to 1782, of 17,650 infants born alive in that institution, 2,744, or about 17 per cent., perished within the first fourteen days from birth. It is the chief cause of depopulation in the colonies of Demerara and Essequibo, the mortuary statistics being of this about one per cent. of all that are born. In the Southern States its victims are chiefly negro infants, and among those that are filthy and low in their habits, and from choice or necessity are insufficiently nourished, and neglectful of sanitary hygiene.

Early Pregnancy.—Dr. Thomas Pope, of Cleobury Mortimer, England (*British Med. Journal*), writes that in the churchyard of Rock is a gravestone with these verses:—

> "Ten years. I was a maid,
> One year. I was a wife,
> One day. I was a mother.
> And then I lost my life."

Dr. Pope was apprenticed where he now resides in 1795, and during the course of this long practice he has attended three parturient mothers under thirteen years of age. The mothers and children all did well.

The Legion of Honor.—The grades of Grand Officer and Commander of the Legion of Honor have been conferred upon M. Demarquay and M. Ricord, for their distinguished services during the siege of Paris.

A Beech-Nut Shell Removed from the Larynx.—Prof. W. W. Dawson, of Cincinnati (*The Clinic*), recently removed, at the Good Samaritan Hospital, a fragment of beech-nut shell from the larynx of an infant. Tracheotomy was performed, when the foreign body was dislodged by a probe inserted into the orifice of the wound and pushed up between the vocal cords. The child left the hospital the next day in good condition.

Timely Papers.—Dr. W. S. Everett, Hyde Park, Mass., and Dr. R. W. Taylor, N. Y. (*Boston Med. and Surg. Journ.*), present interesting and valuable papers which deserve careful perusal. The title of the former is, "Sources of Error in the Common Method of Giving Certificates of Insanity." In the latter, a large class of a more or less mild character, of unrecognized nervous symptoms due to syphilis, are discussed.

Early Menstruation.—Dr. Cheever related, at a recent meeting of the Suffolk District Medical Society (*Boston Med. and Surg. Journ.*), the case of a girl who commenced to menstruate at eight years of age.

Iodine from Chilean Saltpetre.—The mother-liquors of the South American nitrate of soda produce 30,000 pounds of iodine per annum. The iodine is separated from its combinations by sulphurous acid and sulphites.

Philadelphia Presbyterian Hospital.—By the report of the Philadelphia Hospital Finance Committee, the subscriptions taken up by the Rev. Dr. Saunders already amount to $353,000. It is not a year since Dr. Saunders donated his college and grounds to establish this hospital, and entered on the work of raising funds to put it in operation and support it. The grounds (an entire square) and buildings are worth $160,000, so that in the first year the Presbyterians have a hospital worth $500,000.

Medical Department of Harvard University.—The number of students in all the departments of Harvard University is not so large as last year by 210—a falling off of 105 medical students.

The important change in the latter, in the plan of study and the requisites for a medical degree, probably accounts for the deficiency in numbers.

Deaths from Chloroform.—According to the *Boston Medical and Surgical Journal*, seventy deaths from chloroform were reported in England previous to July, 1870. Twenty-nine cases, collected from American and foreign journals, have been noted since that date; nineteen cases in the issue of June 15, 1871, and ten cases in that of December 14, 1871.

The St. Louis Medical and Surgical Journal.—This valuable medical journal will, in the future, be published monthly, instead of bi-monthly as heretofore. The new editors are Drs. William S. Edgar and H. Z. Gill.

Death of an Italian Professor.—Professor Pietre Lazzati, of Milan, corresponding member of the Gynæcological Society of Boston, died recently.

The Census of the United States.—The official census returns the entire population at 38,923,210; distributed, as to color, as follows: White, 33,589,857; Colored, 4,886 387; Chinese, 63,254; and Indians, 383,712. Of these latter, some two-thirds are estimated as "nomadic."

Severe Wound of the Brain.—Dr. William Abram Love, Atlanta, Ga. (*Atlanta Med. and Surg. Journ.*), records a case of severe wound of the brain, from an axe, in a boy fourteen years old. There was a loss of two fluid ounces of brain substance from the middle anterior portion of the left lobe of the cerebrum, a large amount of bony covering, and recovery without impairment of mind. Fond of music, mathematics, his-

tory, and languages, he has retained what he had learned of these. Having given attention to telegraphing, he has lost none of his powers in this respect, and his sense of time is as acute as ever.

Food.—Prof. C. A. Goessman, of the Massachusetts Agricultural College, in his report on "milk, butter, and cheese," says that the fact that even the manufacture of articles of food turns, with the exception of cheese, almost entirely upon the concentration of respiratory substances, as sugar, starch, butter, wines, beer, etc., has been mentioned with some force as a proof that there is a greater want for non-nitrogenous than nitrogenous substances. The subjoined list conveys some idea of the relative proportion of respiratory and flesh-producing constituents of some of our valuable article of food:—

	Flesh-forming.	Respiratory.
Bread of wheat flour.....	1.0	6.50
Meat of fat ox	1.0	6.90
Meat of half-fat ox.....	1.0	3.83
Fat pig, sheep, lamb.....	1.0	10.00
Old sheep, half-fat.....	1.0	6.28
Cheddar cheese.....	1.0	1.
Skim-milk cheese.....	1.0	0.13
Pure milk.....	1.0	2-5-3.0

In the scale of highly nitrogenous substances used by man as food, next to cheese stand our leguminous seeds, as peas, which contain 23.4 per cent., beans, 23.3 per cent., lentils, 24.0 per cent.

Reproduction of the Membrana Tympani.—A case of reproduction of the membrana tympani is recorded in the *Transactions of the American Otological Society*, by H. N. Spencer, M.D., of St. Louis, Mo. The patient, a boy aged eleven years, became affected ten years since, and at one year of age—after an attack of measles—with an acute inflammation of the middle ear, resulting in perforation of the membrana tympani, for which nothing was done. At the time of application for treatment there was found caries located at the point of contact of the ossicula with the tympanic wall. The ordinary treatment was pursued. The result has been a complete recovery of healthy condition in the parts, with restoration of the membrana tympani in each ear. The membrane has the appearance in texture and color of the normal membrane, but without the light spot.

Chloroform in its Medico-Legal Bearings.—Dr. Charles Kidd, of London, in a monograph on this subject, says that the following five points are deducible from an increasing experience of chloroform: 1st. Dilatation, or rather engorgement, of the right side of the heart may be calculated on if the post-mortem be made correctly, and the patient may not have died of simple syncope rather than this apnœa. 2d. The chloroform may be recovered by distillation from the blood and lung-tissues. In this it differs, perhaps, from nitrous oxide. 3d. Chloroform acts slightly on the blood-corpuscles, they being jagged or crenated at the edge, while ether breaks them up; the lungs are, however, usually anæmic or pale under chloroform. 4th. Chloroform is more fatal in the struggling stage, or if there be signs of delirium tremens present. 5th. Great caution should be observed in believing the confused ideas of women menstruating at the time of having chloroform.

Removal of both Superior Maxillary Bones.—Prof. W. H. Mussey, of Cincinnati (*Cincinnati Lancet and Observer*), has successfully removed both superior maxillary bones from a colored man 36 years of age, who, in 1854, received a blow upon the left superior maxilla which caused a fracture. The patient now presents but a slight disfiguration. The molar and nasal bones are all preserved, as also the soft palate, with a large portion of the covering of the hard palate.

The Diseases of Nicaragua.—Skin disease is very common in Nicaragua. Elephantiasis generally attacks the negro, and leprosy the Indian population. Syphilitic and gonorrhœal affections occur constantly, especially amongst the mixed breeds. Nearly the whole stock of the solitary chemist's shop in Granda de Nicaragua consists of remedies for syphilis, and drugs which are supposed to act as aphrodisiacs amongst the Indian population.—*Med. Times and Gazette.*

Fatal Cases of Apoplexy.—Dr. L. S. Pilcher, U.S.N. (*Mich. Univ. Med. Journal*), has collected, in addition to the two cases detailed by him, 156 fatal cases of apoplexy. Of these, 16 were taken from Andral's "Medical Clinic;" 23 from the records of New York Hospital, 1836–62; 20 from the records of the Kings County Hospital, N. Y., 1866–71; 9 from the records of Bellevue Hospital, N. Y., 1869–71; and the remainder from medical periodicals and hospital reports. In 154 instances, 107 were males and 47 were females. That the excess of cases among males is not accidental, but due to constantly operative causes, is evident from the disproportion between the sexes, which exist in the following large number of cases: Of 11,731 cases mentioned by Ferrario, 6,492 were males, 5,239 were females. Of 40 detailed by Jones, 29 were males, 11 females. Of 85 cases given by Hutchinson, 48 were males, 32 females. These cases, with the 154 first given, make a total of 12,005, of which 56 per cent. occurred among males, 44 per cent. among females. In 147 instances is the age stated, having been, previous to birth, in 1 case; at birth, in 2; under 20 years of age, in 8; between 20 and 30 years, in 11; between 30 and 40, in 22; between 40 and 50, in 41; between 50 and 60, in 25; between 60 and 70, in 25; at and above 70, in 12.

Ferrario, as the result of his examination of 11,731 cases, concludes that the tendency to apoplexy doubles with each additional ten years of life. The cases given demonstrate the fact that sanguineous apoplexy may take place at any period of life. Its comparative rarity under the age of 30 lends special interest to a search after the causes for its occurrence in such cases. Of such there are 45 instances out of the 372 cases mentioned by Rcheaux, Jones, Hope, Hutchinson, and Pilcher.

New Publications.

Books Received.

Neuralgia, and the Diseases that Resemble it. By Francis E. Anstie, M.D. Lond., etc. Amer. reprint. D. Appleton & Co. 1872.

Pulmonary Consumption: its Nature, Varieties, and Treatment, etc. By C. J. B. Williams, M.D., F.R.S., and C. T. Williams, M.A., M.D., Oxon., London Philadelphia: H. C. Lea. 1872.

Principles and Practice of Surgery. By John Ashhurst, Jr., M.D., Surgeon to Episcopal Hospital, Philadelphia. Philadelphia: H. C. Lea. 1871.

On the Treatment of Pulmonary Consumption by Hygiene, Climate, and Medicine, in connection with Modern Doctrines. By James Henry Bennet, M.D., London. D. Appleton & Co. 1872.

Original Lectures.

A LECTURE ON THE AFFECTIONS OF THE EXTERNAL AUDITORY CANAL.

By D. B. St. JOHN ROOSA, M.D.,

CLINICAL PROFESSOR OF THE DISEASES OF THE EYE AND EAR IN THE UNIVERSITY OF THE CITY OF NEW YORK; SURGEON TO THE MANHATTAN EYE AND EAR HOSPITAL.

GENTLEMEN:—The affections of the external auditory canal, or of the *meatus auditorius externus*, as this passage is often called, may be conveniently arranged as follows:—

1. Diffuse inflammation.
2. Circumscribed inflammation.
3. Vegetable fungous growths (aspergillus).
4. Inspissated cerumen.
5. Eczema.
6. Foreign bodies.
7. Polypi.
8. Exostoses and hyperostoses.
9. Condylomata.

To avoid any misconception, I would remark that while bony growths (exostoses and hyperostoses) are classed under the affections of the external auditory canal, they are actually consequences of inflammations of the middle ear. It will therefore be more appropriate to consider this rather important subject under the head of diseases of the cavity of the tympanum. Polypi, however, do arise from the walls of the canal when there has been no suppuration in the drum cavity, although this is a rare occurrence, and will demand our especial attention a little later on in this lecture.

Otitis externa is the generic term for all the various forms of inflammation of the external auditory passage, but it is not specific enough for any exact study of these affections.

The subject of inspissated cerumen and foreign bodies in the meatus is enough for one lecture; and I shall therefore confine myself, in what I am about to say, to the inflammatory affections of the auditory canal, and the fungous growths.

Some writers speak of the inflammations of the external auditory passage as being catarrhal; but as Tröltsch strongly insists, there should be no thought of catarrhal inflammation where there is no mucous membrane. The lining of this passage is integument, and in no proper sense can we speak of catarrh of the integument.

Inflammations of the external auditory canal are much more rare than those of the middle ear; of 1,000 cases of the different varieties of aural disease observed by myself in private practice, but 132 were cases of affections of the outer ear. This proportion is about the same in the statistics of other authors and those of public institutions, as shown by the following table* compiled by myself.

	Affection of External Ear.	Chronic suppuration of Middle Ear.
N. Y. Eye and Ear Infirmary, 1869..	46	324
Brooklyn Eye and Ear Hospital, 1869.	17	85
Ophthalmic and Aural Institute (Knapp's)	19	84
H. Schwartze (Halle) of 166 cases...	15	39
Roosa (of 500 cases)	11	111
	108	643

* New York *Medical Gazette*, vol. v., No. 1.

This table was compiled to show that suppuration from the external ear was rare in comparison to that arising in the cavity of the tympanum. This is an important fact, and one that has been quite overlooked, so that many physicians and nearly all of the laity assume that a discharge from the ear usually means merely an inflammation of the auditory canal. Hence an *otorrhœa* has come to be lightly regarded, when it is in reality, in the large majority of cases, a symptom of ulceration of the membrana tympani and of the lining of the cavity of the tympanum, and hence a very serious affection.

Let us first consider the more common of the inflammations of the external auditory canal—Diffuse Inflammation.

Symptoms.—The subjective symptoms of diffuse inflammation of the external auditory canal are itching sensations in the canal, pain, and a sense of fulness. The objective symptoms are impairment of hearing, redness of the canal and of the membrana tympani, swelling, and, at a subsequent period, suppuration of the epidermis and integument. In the lower part of the canal, dealing as we do with periosteum, the pain will be intense, like that from a paronychia.

In the latter periods of the disease granulations may form in the canal, although this is rare. I have the notes of four such cases. One, that of a lady, was complicated by a precedent inflammation of the cavity of the tympanum; but the inflammation of the external auditory canal was an independent one. Very large granulations, or polypi, sprang up in a few days after a poultice had been applied. The second case occurred in an Irish laborer, whom I saw at my clinic here in the College. I removed a large polypus, or granulation, which the patient stated positively had occurred in a few days, and that he had never previously suffered from disease of the ear. After the treatment had progressed for some time, I found that the inflammation was confined to the canal and outer layer of the drum-head. The third case I saw at the Brooklyn Eye and Ear Hospital. The trouble in the ear had lasted seven days, and here also there was a large polypus. The fourth case is one that I have now under treatment. A lady suffered from what she supposes to have been an abscess of the external meatus. It was lanced, and then poultices were applied. I saw her six days after. She had used the poultices nearly the whole of the six days. I found the canal blocked up by a polypus as large as a filbert, growing from the anterior wall of the canal. The microscopic appearances of the growths are identical with those of polypi springing from the mucous membrane of the cavity of the tympanum.

Although it is anticipating somewhat of what should be said under the head of treatment, I will here state that the undoubted cause of these growths, in the four cases just given, was the prolonged use of the poultices. Tröltsch called attention to the fact that poultices produced tedious suppuration; but I believe this is the first intimation that they cause the sprouting up of exuberant granulations, or polypi, as they are called.

The causes of the diffuse form of inflammation are various. Irritation of the ear by means of ear-picks, by hair-pins, a favorite instrument with women; by the instillation of such agents as Harlem oil, Cologne water, camphorated oil, and so on, are frequent causes of an inflammation of this part. There is probably some antecedent inflammation of the integument which causes a resort to those agents, to relieve the troublesome itching sensations. Cold draughts of air are often spoken of as causes of inflammation of the outer canal; but such influences are more apt to produce an inflamma-

tion of the naso-pharyngal space, and through that of the middle ear. In fact, the causes of external otitis diffusa seem to be chiefly local, if I may so speak; that is, caused by mechanical causes acting locally. Of late an apparatus, consisting of a very small sponge attached to an appropriate handle, has been devised, and called an *aurilave*, and is sold largely in drug-shops as an instrument for cleansing the ear. It does a great deal of harm. By its use the secretions are packed in the ear, and inflammation of the integument or inspissation of the cerumen is very often caused.

There is altogether too much solicitude on the part of mothers and other persons as to the cleanliness of their children's or their own ears. The auricle and the edges of the opening into the canal, which are about all that the little finger will reach, are the only parts of the organ that require cleansing when the ears are in a state of health. Any further manipulations with towels, ear-spoons, and so on, are meddlesome, and may become dangerous to the health of the canal.

Treatment.—An attack of *otitis externa diffusa* in an adult may be usually cut short by the use of leeches. They should be applied, as *Wilde* so long ago pointed out, not on the mastoid process but on the *tragus*, for the reason which Tröltsch gives, that in this place the vessels which supply the canal and outer layer of membrana tympani are most conveniently and surely reached. Leeches in this form of disease are not as certain in their effects, however, as when used for an inflammation of the middle ear, when, as we shall see, they exert an almost magical influence, so rapid is their effect. In the early stages of the disease, when the pain is severe, and suppuration has not yet occurred, but the canal is red, swelled, and sensitive, great benefit will be produced by scarifications of the cartilaginous wall. This scarification is made with a tenotomy knife, making incisions of from three-fourths to an inch long on the walls of the canal, as recommended by Gruber, of Vienna. Warm water should also be allowed to run into the ear, by means of Clarke's ear douche, or any similar means. When patients are told to apply warm water to the ear, unless they are particularly instructed, they will almost invariably use the syringe, thinking that is the way in which the water is to be applied; but what is required is the steady flow of warm water upon the part, and this is best attained by means of the douche. Patients should be instructed in its use, and especially should they be told that, unless the auricle is kept on the stretch, so that the walls of the canal are apart, the water will not enter the ear. The douche is the same as the so-called nasal douche of Weber, and is very valuable for the auditory canal, but very dangerous when used for the nose. If the use of the leeches, the employment of scarification, and the warm douche do not wholly subdue the pain—which is quite unlikely—a small flaxseed poultice may be applied *in* the canal, but the ear should not be covered by a large poultice, as is often done; such poultices relax the tissue, to so great an extent that granulations or polypi are apt to spring up from the softened and loosened tissue, as we have seen in the cases that I have detailed. A poultice should never be applied to or on the ear for more than a few hours. They are almost as dangerons a remedy in aural as in ophthalmic practice, where they have caused the loss of many eyes.

At night the ear should be kept warm by wrapping it in cotton, and the patient should lie on a pillow that is warmed from beneath, by means of a rubber bag filled with hot water, or some similar contrivance. By attention to these details much suffering will be spared the patient, and the course of the affection will be shortened. In addition to the local treatment it will sometimes be necessary, although not often, to give one of the preparations of morphine, or a dose of chloral internally. I have not found much advantage from the addition of narcotics to the warm water instillations, although there may be some benefit from their use. Magendie's solution of morphia is the agent I usually employ in the ear, using about one part to eight of water, dropped when warm into the canal. The popular remedies for ear-ache, dependent upon whatever cause, are usually sweet oil and laudanum, molasses, Harlem oil, glycerine, and a roasted onion. The oil, laudanum, and molasses are tolerably efficient; but although they are useful in their property of stilling pain, they are far inferior to the leeches, scarification, and warm water. I have seen children, who had been suffering from severe pain in the ear, drop off to sleep in a few moments after a tablespoonful of warm water was poured into the ear, and yet I am very sorry to say that there are some rare cases where warm water seems to aggravate the pain; but the leeches scarcely ever fail us.

The onion acts just as the conical flax-seed poultice, and may be resorted to if the warm water fails, and leeches are not to be had. Harlem oil, and all similar stimulating applications, do nothing but harm, and increase the sufferings of the distressed patient. The laity resort to such applications, and submit for days to pain in the ear, without going to a physician, because they have been taught by sad experience that doctors pay very little attention to an ear-ache—and yet what pain is worse? Warm vapor of any kind, the smoke from a cigar, for example, is very grateful to an inflamed auditory canal or membrana tympani; and a steam nebulizer becomes at some times a very useful adjuvant in treatment of acute aural inflammations. Sometimes children, who awake at night with ear-ache, may be quieted by breathing into the auditory canal. Some practitioners are in the habit of advising, indiscriminately, blisters behind the ear, in all forms of aural disease, whether acute or chronic. Whatever may be their virtue in chronic disease, they are only an aggravation in the acute forms of aural inflammation, and must give a patient an unfavorable idea of the benefits of counter-irritation. Speedy relief from the severe pain is as imperative as in peritonitis or iritis, and I have dwelt on the various remedies at some length in order that you may be at no loss for some agent that will cut short the inflammatory action. I will tabulate them in the order that I consider them valuable: 1. Leeches; 2. Scarifications; 3. Warm douche; 4. Conical poultice in the canal; 5. Steam or warm vapor; 6. Opium or chloral.

Most adult patients go about while suffering from external diffuse otitis. During the more acute stages, it would be better to keep them in doors and in bed. If this can be accomplished, the use of diaphoretics will aid the local treatment.

If, in spite of our efforts, suppuration is once fairly established, or if the disease has advanced to this point when first seen by the practitioner, he must endeavor to limit the suppuration. To this end thorough cleansing of the ears is necessary. This is best accomplished by syringing—a simple procedure, but one which many physicians are unable to carry out efficiently and with neatness. The appliances necessary for a thorough syringing of the ear are, first, a good syringe. I think the small hard-rubber syringe is the best, although a Davidson's syringe does very well.

Then we need a bowl—a small one, not a large wash bowl, but one such as is used as a finger-bowl, it being thin and easily held, and a receptacle for the warm

water which is to be used in the syringing process. No towels or napkins are needed about the neck, to prevent spilling the water; no assistant beside the patient, if he be an adult, and if the procedure be carried out as I will describe. The patient being seated, holds the bowl well under the auricle, in the hollow just under the tip of the auricle, keeping the head perfectly straight, and using both hands to steady the vessel. The surgeon should thoroughly straighten the auditory canal with the left hand, and with the right, placing the nozzle of the syringe well into the meatus, direct the stream down to the membrana tympani. It is well to prepare the patient for the shock of the water by allowing a part of the first syringeful to pass into the concha, and not into the canal.

It will be seen that no patient is capable of thoroughly syringing his own ear, and that no person who has not been taught the simple process will be able to accomplish the object for which syringing is undertaken, that is, the cleansing of the auditory canal and the outer surface of the membrana tympani. Notwithstanding these facts, patients suffering from an ulcerative process in the ear, and who require the daily removal of the pus as an essential to recovery, are often sent away without other instruction than the advice to syringe the ear. It is almost as difficult for a person to properly syringe his own ear, as to cauterize his own palpebral conjunctiva. We certainly would never think of leaving the latter manipulation to any but a person who had been taught to manage it properly.

The ear affected with chronic external otitis should be cleansed from one to three times daily, while the secretion is at its height. The parts should be then dried by means of cotton twisted about a thin bit of wood, or a steel cotton-holder. The agents which may be used in checking ulceration are numerous. I prefer solutions of nitrate of silver, of alum, and of the sulphates of zinc and copper, to the others. The nitrate of silver I use in strong solutions, from 20 to 40 grains to the ounce, pencilled over the parts; the sulphates and the alum in solutions of from 1 to 4 grains to the ounce, instilled into the ear. The choice of the astringent is, however, much less important than the thorough removal of the pus, which should be done at least three times a week, and, if possible, daily, by the physician himself.

It is sometimes almost marvellous what may be done for a neglected suppuration of the auditory canal, however many alteratives and other constitutional remedies the patient may have taken in vain, by the mere daily removal of the pus and the application of a caustic or astringent.

2. Circumscribed or furuncular inflammation of the external auditory canal is quite a common affection, and I imagine there are many more cases of this affection than is shown by the statistics of the writers on otology, inasmuch as it is not a serious affection in its consequences, and very often gets very little treatment. The subjective symptoms of a furuncular inflammation of the external auditory canal, are pain and a sense of fulness in the ear. There is scarcely ever any *tinnitus aurium*, for the reason that the circumscribed swelling makes no pressure upon the membrana tympani and ossicula auditus, which pressure is usually the cause of the sounds in the ear described under the term of tinnitus aurium. On examination we find roundish isolated swellings, that are very tender and sensitive to any contact. Even the touch of a delicate probe will sometimes cause patients to make an exclamation of pain. These swellings are not usually very red; for the integument is quite thick in the outer portions of the canal, and this is the usual site of the affection. We often find two points of pain and swelling in the same ear, and they are very apt to occur in succession, so that we are by no means sure of being done with a case because one furuncle is cured. The swellings that occur in the lower portion of the canal, the bony portion, which is two-thirds of the whole length, are not usually circumscribed, but diffuse, and are therefore to be classified under that head. They are more painful than furuncles, from the fact that the integument is thinner and closely adherent to the periosteum, so that such an inflammation is analogous in the fearful pain which it occasions to a paronychia, and requires the same treatment, that is, a free incision through the tense and swelled structure down to the bone. I should also say that the pain experienced in swallowing, chewing, and the like motions, from the pressure of the upper jaw, through the glenoid fossa, upon the swelled auditory canal, is one of the symptoms of which patients with either the diffuse or circumscribed forms of external otitis complain very much.

The causes of furuncular inflammation of the outer ear are not very plain. Like furuncles in the other parts of the body, they are often an evidence of a deteriorated condition of the general system; but again they occur where the subjects are in good general health. In such cases some local irritation by mechanical or chemical means, such as have been mentioned in the discussion of diffuse inflammation, is probably the cause.

The general treatment will be determined by the condition of the patient. The local is simple; a deep incision should be made into the swelling, if any one very tender point can be found. It is a matter of indifference as to whether suppuration has or has not occurred in deciding as to the expediency of an incision. It should be made as soon as the case is made out. Leeches do very little good in furuncular inflammation. After the incision the ear should be douched every fifteen minutes or half an hour, by means of Clarke's ear-douche, until the pain is relieved, when it may be used at intervals. The ear should also be cleansed by means of a syringe and the cotton-holder of which we make so much use in aural therapeutics.

The thorough cleansing will usually relieve the impairment of hearing caused by the swelling and closure of the canal, while the incision and douche will cut short the pain. Each new furuncle is of course to be healed in the same way.

3. Vegetable fungous growths.

It was only a few years ago that a discovery was made as to the appearance of a vegetable fungus or mould in the ear. This discovery, which was made by Schwartze, of Halle, in 1867, has cleared up a great many obstinate cases which were once supposed to be due to impaction of the wax, or chronic inflammation. In 1844 a case was reported, but it failed to attract attention until Schwartze published his case and referred to Mayer's.

The fungus known as the aspergillus, and which may be found on mouldy bread and on the walls of damp rooms, is that which invades the ear. The pencillium also forms in the auditory canal. The microscope is required to determine positively that the growth is the aspergillus or pencillium; but having once seen a case, you will nearly always be able to know without such an examination with what you are dealing. Dr. Wreden, of St. Petersburg, Orne Green, of Boston, Knapp and myself, of New York, have published cases of the formation of aspergillus in the ear. It is now very well known, as well as its fellow fungus the pencillium, as the cause of an obstinate external otitis, the pencillium having been made to grow with the aspergillus by Blake, of Boston.

Subjectively, the symptoms of aspergillus are pain, tinnitus aurium, vertigo, and impairment of hearing. The objective appearances consist in the close adherence of lardaceous, yellowish white flakes or scales, which are easily mistaken for epidermis, to the walls of the canal and on the outer surface of the membrana tympani. These flakes are of a whitish color, and very adherent. They cannot be thoroughly removed by the syringe, but the angular forceps is required. This removal should be only undertaken when the canal is illuminated by means of the mirror which is attached to the forehead by a band encircling the head.

These parasitic flakes form very rapidly, so that when you have on one day thoroughly removed them, on the next you will often find them fully formed; and again you may remove a cast of the walls of the canal and of the drum membrane. The integument beneath the mould is found reddened and sensitive. Particles of dirt are very often mingled with the epidermis and fibres making up the flakes, scales, or casts that are removed, and in one of the varieties of the aspergillus, the nigricans, black points are found, which sometimes cause the mass blocking up the ear to be mistaken for impacted wax. But if you have once seen and examined the two products, you will hardly make this mistake. If you do, the reappearance of the fungus in a few hours will correct the error.

As I have said, there is apt to be pain and tinnitus connected with the presence of the parasite. The pain is dependent upon the inflammation of the canal, which has denuded it of its epidermis, and given opportunity for the appearance of the mould. The tinnitus is dependent upon the pressure made upon the membrana tympani by the formation. There is often vertigo in addition to the tinnitus, depending upon the same cause.

I need not give the microscopic appearances in any detail. Quoting from my friend, Dr. William B. Lewis,* I remark that there are three essential parts: 1. The mycelium, a dense network of false membrane, delicate fibres which form the basis of the structure. 2. The fructifying portion arising from this. 3. The free spores which lie upon and in the mycelium.

The causes of the affection are not quite clear. But I think we may assume that the fungus never invades a healthy ear. We cannot, therefore, promise a patient who comes to us with this affection that he will be well when the aspergillus ceases to grow. He may have suffered from chronic catarrh of the middle ear previously to the attack of the parasite. In the majority of the cases the inflammation that has preceded the aspergillus formation is an otitis externa, which is tractable.

I am aware of the view that the fungus causes the inflammation, but my experience has taught me that the growth of the aspergillus merely aggravates a previously existing affection of the canal and membrana tympani.

The treatment is very simple, and consists essentially in the removal of the fungus as fast as it forms, by means of the forceps and the syringe. Warm water should be freely used after the growth is removed. Then the denuded surface may be brushed over with a strong solution of nitrate of silver, or a weak one of sulphate of zinc may be instilled. The use of the so-called parasiticides is unnecessary.

Other parts of the integument are liable to the growth of the aspergillus fungus. Professor William H. Draper, of this city, saw it on the inner side of the thigh, where it simulated eczema, as it does in the ear at times.

I have said sufficiently in regard to polypi from external otitis to show you that they arise from improper or neglected treatment. The discussion of their nature and the means for their removal I will leave until we come to the subject of suppuration in the middle ear, as I may also that of exostosis and hyperostosis in the canal. Eczema of the passage requires no further mention than that made in my lecture on the diseases of the auricle.*

Condylomata arising from syphilitic poison sometimes occur in the auditory canal. Stöhr† of Würzburg has reported fourteen cases, occurring chiefly among women, and one with two exceptions in connection with condylomatous formations on the genitals, in the axillæ, under the breasts, and between the toes.

The consequences of these formations may be chronic suppuration and narrowing, perhaps hyperostosis of the bony canal.

The local treatment consists essentially in carefully cleansing the ear, as often as may be necessary, while anti-syphilitic remedies are employed.

* *American Journal of the Medical Sciences*, vol. lix., p. 110.

Original Communications.

TREATMENT OF DISEASES OF THE AIR-PASSAGES BY THE MEDICATED SPRAY.

Whooping-Cough. Ulcer of the Trachea from Mechanical Obstruction. Acute Catarrh of the Smaller Bronchi. Syphilitic Condylomata of the Larynx Resulting in Ulceration. Chronic Phthisis. Large Excavation of the Right Lung. Chronic Catarrh of the Fauces and Nasal Cavities. The Administration of Chloroform per Spray.

By JOHN J. CALDWELL, M.D.,

BROOKLYN, N. Y.

My treatment of whooping-cough may or may not be entirely new to the profession, viz., local medication by the Spray Atomizer, such as is made and sold by Messrs. Codman & Shurtleff, and others—my favorite medicinal agents being bromide of ammonium and potassium, together with liquid preparations of belladonna. Believing in Niemeyer's views of the pathology of this disease, "that whooping-cough is a catarrh of the respiratory mucous membrane, combined with intense hyperæsthesia of the air-passages," I made my medication directly to the parts affected, and the results have been so satisfactory and rapid that I ventured to submit the following cases for the RECORD.

CASES 1 and 2 were my little daughters, aged respectively two and four years. They contracted the disease in July, 1869, it being at that time prevalent in our city, and in their cases the malady was decided and distressing. After exhibiting the usual remedies with little or no relief, I resorted to the above treatment as an experiment. Getting up steam, and placing my little ones severally upon my knee in such a position that the spray should play right into the face, as a natural consequence they began crying, and that was just what I expected and most desired, for the deep inspirations would carry the bromides and belladonna home to the local trouble. My formula is as follows:—

℞ F. Ext. belladonna, gttæ.....v.–x.
Ammon. bromidi.....ʒ i.–ii.
Pot. bromidi.....ʒ ii.–iv.
Aqua dest.....ʒ ii.

* *Medical Record*, vol. vi.
† *Archiv für Ohrenheilkunde*, Bd. iv., s. 255.

Of this we use a tablespoonful at each application. July 11th, children much better; the intermissions of greater space. Made another application July 14th; attack very mild; scarcely any whoop. Continued treatment July 16th; whoop and spasmodic action gone, with a slight cough which passed away in a few days.

Case 3.—August 24th, was called across the street to see my neighbor's children, three in number; found them suffering from same affection. The father informed me that the distress was so great and constant that the children could not rest, and were becoming very weak and emaciated; that their physician did not relieve them, and that as the weather was so oppressive he felt fearful for their lives. I administered the spray treatment to them in turn while they were sitting upon their father's knee. They called on the following succeeding days, viz., 26th, 27th, and 28th, and on the 1st of September I discharged them cured.

Case 4.—September 9th, Mrs. McG. called at the office with her little son, aged two years, afflicted in the same manner. After three or four applications we had similar happy results.

Here we may say, that when the nights are passed with much disturbance from spasmodic coughing, it is our habit to administer the same solution by the stomach, in doses suitable for the occasion.

Case 5.—In October, 1870, I was called to the family of Mr. S., of Sackett street, where I found his five children suffering severely with whooping-cough. I left the Atomizer at the house, with a sufficient quantity of the mixture, at the same time instructing the mother (who was a competent, intelligent person) how to administer it. I now and then called to watch progress, and at the expiration of two weeks was pleased to find that the patients, like the others under my care, had speedily and entirely recovered.

ULCER OF THE TRACHEA.

from mechanical obstruction, complicated with inflammation of the bronchial mucous membrane, treated by the Spray Atomizer. My medication was in this instance composed of a solution of carbolic acid, tr. of iodine, and glycerine, and as a counter-irritant I used pitch-plasters sprinkled with tart. antimony.

Case 6.—November 18, 1869, Mr C. called at the office, complaining of a severe, short, sharp cough. He informed me that his occupation was that of a stone-cutter, and that it was very dusty work, and he, like the other men of his trade, was continually inhaling this foreign matter, and consequently this cough was very prevalent among his trade. With himself the disease had been of so long standing that he feared consumption.

Ordered him a spray of the above-named ingredients, and suspended him from his vocation during treatment. November 20th, 24th, and 27th, continued treatment. Ordered the plasters to be removed, the eruptions cleansed and dressed with belladonna plasters; continued this treatment till December 15th, when he was discharged free from all trouble of the air-passages.

Among the other causes of mechanical bronchitis are, for example, the grinders' rot, or knife-grinders' disease, and carbonaceous dust, occurring with miners, inhalation of lamp-smoke and carbonic acid formed in pits and wells, and cotton particles, and dust met with among operatives in cotton-mills, needle and glass-grinders, and glass-blowers.

ACUTE CATARRH OF THE SMALLER BRONCHI.

Mr. F. S. G. lately returned from Europe suffering from the above-named trouble. On examining his chest I found impeded respiration, with mucous râle in the smaller bronchi; at the apex of both lungs discovered impeded and lengthened expiration, a condition which is very clearly described by Professor Armour, of our city, as a loss of tonicity and contractility of the air-cells and smaller bronchial tubes of this portion of the lung. September 6th, administered spray-atomizer fluids, containing carbolic acid, tincture of arnica, and glycerine; also, as a counter-irritant, a pitch-plaster sprinkled with tart. antimony; ordered as a constitutional treatment, Wyeth's *preparation of iron, bark, and strychnia*, with a generous diet and a favorable atmosphere. September 7th, 8th, and 9th, continued this treatment, and September 11th ordered the plaster removed, and the eruption cleansed and dressed with *olive* oil. September 13th, 14th, and 20th, continued the spray and other treatment. September 27th, *discharged cured.*

The above is *typical* of many cases treated by this means *with like results.*

SYPHILITIC TUBERCLE; OR, CONDYLOMATA OF THE LARYNX, RESULTING IN EXTENSIVE ULCERATION OF THE SAME.

J. McL., aged 50, of robust and athletic habit. He informed me as to his history, some twenty years since being led into the wilds of California, where he acted the part of a vigilance committee officer, and that there he had contracted *syphilis*, which was rudely and imperfectly treated. June 5, 1871, he came to my office complaining, without any apparent or assignable exciting cause, of a feeling of tickling in the throat, his voice deep and hoarse, with a harsh barking cough. These symptoms of his history led me to believe his trouble to be *syphilitic catarrh*, with *condylomata of the larynx, involving the vocal cords.* Consequently I placed him on the *Ricord* mixture, and ordered him sprays containing tr. of iodine and glycerine; this treatment was continued for the space of several months, seeing him at short intervals up to September 30th, with little or no beneficial results; every variety of specific treatment would seem of *no avail* in his case. The thickened membrane, the partially occluded respiration, became so alarming that we called in consultation Drs. Beard, Rockwell, and other medical gentlemen, at which time he was examined by the laryngoscope, which revealed the above-mentioned condition of his throat. Here it was agreed that a spray containing a solution of *nitrate of silver* of 40 grains to the ounce should be used, together with the use of the constant current of eight or ten cells (Stöhrer's battery).

October 1.—This treatment was continued until about the 20th of the month, with very little improvement.

November 2.—Throat trouble still more alarming; another examination by the *laryngoscope:* thickening and ulceration clearly defined; present at the examination, Drs. Beard and De Bow.

November 3, 6 A.M.—Called in haste; Mr. McL. *reported* dying from *suffocation.* Accompanied by Dr. Vickers, we proceeded *at once* to his house, when we found marked and laborious long-drawn breathing so characteristic of *stricture of the larynx*, with stridor audible at quite a distance, with symptoms of carbonic poisoning. After placing his feet in hot mustard water and administering a *zinc* emetic, we exhibited a mixture of *ether* and *chloroform*, with only temporary relief, after several hours' trial of various anti-spasmodic remedies. By the happy suggestion of Dr. Vickers we gave him a hypodermic injection of a solution of atropia, amounting to about one-sixtieth of a grain. This was followed by a dilatation of the pupils, as well as a relief from his spasmodic stricture; half an hour subsequent, repeated the hypodermic injection of one-sixtieth of a grain, which produced a quiet sleep. We also (by the

advice of Dr. Vickers) continued this treatment for several days, together with the administration of *iodoform*, with pyrophosphate of iron, of two grains each, morning and evening, with very happy results, all the alarming symptoms having subsided. He still keeps his room, with the endeavor to establish a dry and equitable temperature. Thus, together with a generous diet and a continuation of the *iodoform*, we may entertain great hopes of ameliorating his trouble.

The above is a case wherein the usual and well-known remedies, the spray and electricity, seemed utterly to fail of any good results.

CHRONIC PHTHISIS, LARGE EXCAVATION OF THE RIGHT LUNG.

On the 18th of May, 1871, Andrew D. called at the office; said that two years previous he had been laboring under frequent attacks of cough, with profuse expectoration and spitting of blood. During this period he had become greatly emaciated and very weak, sweating at night, with occasional diarrhœa; there is frequent prolonged cough, with copious purulent expectorations, often causing vomiting. Marked dulness on left side of chest, with large cracked-pot resonance, and flattening of ribs under clavicle; under right clavicle dulness also evident, but resonance good over rest of the lung. On auscultation of left side loud gurgling is audible, with *pectoriloquy* extending over the whole anterior surface, but diminishing somewhat towards the base. Under the right clavicle there is mucous râle on inspiration, with bronchophony. Breath-sounds inferiorly normal. Posteriorly the physical signs are similar to those in front. There is considerable dyspnœa on exertion. Heart-sounds normal; pulse 110, feeble; total loss of appetite, with anorexia and vomiting after taking food.

Tongue slightly furred; no diarrhœa at present, but says he is very subject to attacks of it; body greatly emaciated, and copious sweating at night. Other functions normal.

Milk mixed with an equal part of lime-water, and strong beef-tea with toast, to be taken frequently in small quantities.

June 1.—Ordered him *cod-liver oil* and iron tonics; also directed him to spend the warm season in the country.

September 1.—Returned very much improved.

September 28.—Was called at his house, and found him suffering from

HÆMOPTYSIS.

Blood coughed up in mouthfuls of a frothy and florid color, mingled with sputa; amount of hemorrhage was quite alarming. Ordered him a spray solution of glycerine and liquid sulphate of iron of equal parts, of a few minutes' duration, to be repeated every two or three hours. This acted very kindly as a hæmostatic; also administered a solution of bromide of sodium and tr. of verat. to control the excited heart's action; this reduced the number of his pulse from 110 to 75 or 80, having the effect of making it normal, soft, and regular. Endeavored to establish strict mental and bodily repose, rest in bed, head and shoulders elevated, unstimulating diet, ice-cold drinks, counter-irritant to the chest, and fluid extract of ergot, ½ drachm doses, every three or four hours. Under this treatment in a few days the bleeding ceased. Soon after he expectorated the coagulum of the *bronchi* in small portions. After which, under generous diet, with inunction of *cod-liver oil* from head to foot and cod-liver oil injection per rectum, he made steady and rapid progress. Here I may state that my attention was called to his sister (a married lady, 20 years his senior), who had undergone the same ordeal when about his age; she also had lost the apex of the right lung by ulceration from phthisis, which resulted in a cicatrix and restoration to health—a condition of things so vividly described by John Hughes Bennett in his able clinical lectures. In the treatment of hemorrhage of the air-passages, I found the spray styptics (especially when moderated with glycerine) to be a most reliable, rapid, and satisfactory remedy, and mention the above simply as a typical case.

CHRONIC CATARRH OF THE FAUCES AND NASAL CAVITIES.

On the 13th of May, 1869, Mr. E. called at the office, and complained of pain and difficulty of swallowing, and occasionally became worse; had also, on examining his throat, discovered small phlyctenula or encysted tubercle coming on the soft palate, which, on account of their color and disagreeable odor when squeezed, he believed to be tubercles, and from this he feared he had consumption. He also complained of an irritating, disagreeable sensation of prickling, of dryness in the throat, which made him unwilling to swallow, but frequently made him hawk and hack for a long time; this hacking increased to a troublesome spasmodic cough, and his voice became husky, and finally hoarse; at night his nose became stopped and he was compelled to sleep with his mouth open, and in the morning his tongue was very dry, followed by slight hemorrhage, and the effect was most depressing. The treatment of the diseases of the cavity of the nose is attendant with more or less difficulties, owing to the fact that the cavity is large and complicated by many sinuosities, interrupted by many thin bony and membranous projections, and therefore little accessible, and for the most part not accessible at all to instruments by which growths might be removed, or topical remedies applied.

May 13, 1869, we commenced the treatment in Mr. E.'s case: A nasal douche, containing glycerine, iodine, and carbolic acid in solution of one or two quarts of warm water, temperature of over 100° F., for the reason that warm glycerine solutions are more efficacious and agreeable to the inflamed and irritated membrane. After this exhibition we directed the spray fluid, containing the same ingredients, directed to the diseased portion of the fauces and vocal chords. This treatment was continued in this case for a few weeks with entire success.

Since the above I have treated cases, quite a number of them, with like results. Still, I would not have it understood that all cases of chronic catarrh treated in this way result so favorably; on the contrary, many of them, especially those with a specific taint, partially or wholly resist all sorts of treatment. We now have under this treatment a young lady in whom we can trace no taint whatever. Still, she has been under our care for over one year—with marked benefit, yet not entirely cured, though she cannot leave off the treatment, because her trouble becomes aggravated both as to her suffering and to the foul odor of her disease. Within the past two years I have also found the gentle constant current useful in these cases; often, when all other remedies fail, this will effect a cure.

Of the fluids to be employed for deodorizing and medicating the cavity, I employ in all applications a solution of glycerine, which seems to hold the agents more steadfast, and to mollify them; as caustics: nit. silver, carbolic acid, persulph. iron, and other strong solutions; milder caustics: sulph. zinc, sulph. copper, subacetate of lead, bichloride of mercury; sedative solutions: Prussic acid, tr. of opium. These drugs may be added to some of the above solutions of metallic salts. But if this be desired, it is better to substitute a solution of morphia for tr. of opium. The Prussic acid is incompatible with the copper, silver, and precipitated mercury solutions;

it goes conveniently with the alum and common solutions. Styptic or hæmostatic solutions: ice-cold salt water containing an ounce of salt to a pint of ice-water, which takes the first place. If this is insufficient to stop hæmorrhage, a fluid ounce of the tr. sesquichloride of iron may be added to each pint of ice-cold salt water. Stimulating solutions: one ounce of eau de Cologne upon ten ounces of salt water is a useful stimulant; strong spirit of wine may be taken in place of the eau de Cologne.

Mode of applying these fluids to the nose by means of the douche and spray apparatus is as follows:—The fluid of the proper composition and temperature is filled into the glass vessel; all air in the india-rubber tube is now replaced by fluid, the escape of the air upwards being facilitated by gentle manipulation. The glass vessel is raised and fixed in the position which will give the desired pressure.

THE STEAM ATOMIZER

consists of the sphere-shaped brass boiler steam outlet tube, with packing-box formed to receive rubber packing, through which the atomizing tube passes steam-tight, and by means of which tubes of various sizes may be tightly held against any force of steam by screwing down its cover while the packing is warm. There is a safety-valve of graduation for high or low pressure by the spring and screw in its top, the non-conducting handle by which the boiler may be lifted while hot, the medicament cup and cup-holder, the support, the base, the glass face-shield with oval mouth-piece connected by the elastic band with the cradle, whose slotted staff passes into a slot in the shield-stand, where it may be fixed at any height or angle required by the the milled screw. The upright arm of the Bergsson atomizing tube, is formed in part by a rubber tube which dips into the medicament placed in the bottom of the jar. In this instrument the receptacle for the medicament, and the shield for the protection of the face are united in one piece, while the spray is rendered exceedingly fine by being thrown forcibly against the sides of the jar. Then there is the elastic bulb which, with its valves, serves to force air into the elastic chamber, which, alternately expanding and contracting, supplies a steady stream of air to the atomizing tubes, one brauch of which dips into the vial containing the medicament. The stopper is made of elastic rubber, and fits perfectly the atomizing tubes and vial. In addition to its other uses, this instrument constitutes a perfect douche for bathing and making medicinal applications to burns, sensitive eyes, inflamed surfaces, painful sores, and for perfuming or disinfecting the sick-room. The freezing apparatus for producing local anæsthesia is similar to the above, with exception of atomizing tubes (which are of metal), and is all that is required for producing local anæsthesia by freezing with ether or with rhigolene. The metallic tubes which accompany this apparatus are equally efficient for inhaling purposes, except for liquids liable to be vitiated by contact with metal, for which glass, silver, or platinum tubes should be used. Again, there are glass tubes for throwing spray downwards into the larynx, or, when inverted upward, into the posterior nares; glass tubes for throwing spray upwards into the posterior nares; dental tubes, the bifurcated portion of the tubes designed to deliver spray on both sides of the gum at the same moment, and a conical end of air-tube, over which the rubber tube of the bulbs is passed when used, and regulator to control amount of liquid. These tubes are for teeth extraction, painless removal of dental pulp and other operations in dental surgery. With the bulbs they form the most desirable apparatus yet devised for these uses.

CHLOROFORM ADMINISTERED BY SPRAY.

I have found this agent far more safe when administered by the spray atomizer, as per experiments upon myself, patients, and the lower animals; the same may be said of ether and alcohol, both rapidly and softly producing anæsthesia; the theory being that the extra amount of oxygen and attenuation producing this effect more gradually, thus the nerve, arteries, and peripherals are not so suddenly paralyzed; aside from this we have saved much time, as well as chloroform and ether. This method will be found useful in stricture of the trachea and œsophagus, asthmatic and other spasmodic troubles. I was quite astonished to find alcohol, when administered in this way, so rapidly produce unconsciousness.

ON THE USE OF DR. SQUIRE'S CATHETER IN PROSTATIC ENLARGEMENT, AND ITS MODIFICATION.

By S. CARO, M.D.

NEW YORK.

W. P. F., Esq., aged 81, average weight 250, habits temperate, and is in every respect healthy.

In the month of May, 1870, he complained of difficulty in micturition. My advice was to have the urinary canal examined, in order to ascertain the cause of the trouble, as I considered it due to the enlargement of the prostate. To this he opposed, and nothing was done. On the 12th of September last, whilst at dinner, he was suddenly seized with strangury, and was compelled to leave the table, but before reaching the door he discharged his urine involuntarily, but with much pain.

I was immediately summoned, and upon arriving at his residence examined the urinary canal with a No. 8 elastic bougie, and found an enormous enlargement of the middle lobe of the prostate. The bougie was passed with great difficulty, and left *in situ* for the night. In the morning it was withdrawn, and urine was voided quite freely. The evening of the 13th I used a No. 10, with a little more ease. Until the 27th, this bougie was introduced morning and evening, leaving it in the canal several hours at a time. In the mean time the compound tincture of iodine was applied in the perineal region. On the 28th a No. 12 bougie was readily passed, and left *in situ* for two hours. A professional gentleman, relative of the family, on a visit, was intrusted to introduce it at night, leaving it in urethra for two or three hours. Unfortunately, and contrary to instructions, this gentleman went to an evening party, left the bougie within reach of my patient, who, being desirous to retire, introduced it himself, forced the instrument the wrong way, lacerating a fold of the urethra and prostatic gland, causing some hemorrhage, great inflammation of the adjacent parts, producing cysto-peritonitis, with great difficulty of micturition. From the 28th of September until the 1st of October the water dribbled and only by drops; there was no possibility of introducing a catheter of any size.

Applying to Mr. Philip Schmidt (Stohlmann, Pfarre & Co.) of 107 East 28th street for one of Dr. Squire's vertebrated catheters, he kindly furnished me with a No. 8. Oct. 2d, 2 A.M., whilst the patient was suffering fearfully from uræmic convulsion, the passage of

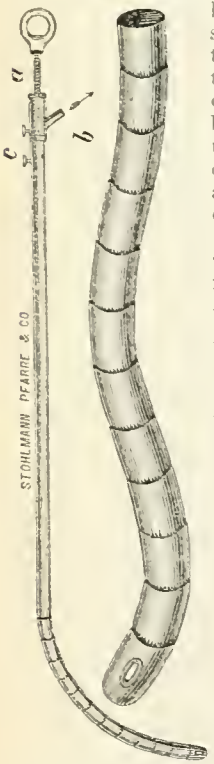
the vertebrated catheter was attempted. To my astonishment, it not only passed with facility, but burst the abscess, and a teacupful of putrid purulent matter ran freely through the urethra and outside of the catheter, and about two quarts of highly blood-colored acid urine passed through the catheter. I had despaired for the life of my patient, but Dr. Squire's invaluable catheter signally aided me in my dire extremity, and re-established my almost shaken reputation with the family.

The moment the abscess burst and the urine escaped, convulsions ceased, and my patient rallied.

During the following 24 hours the catheter was twice used, and he continued to do well until October 29th, when he died of inflammation of the ascending colon, peritonitis, and pharyngeal paralysis.

My three cases of prostatic enlargement, two of which I furnished Dr. Squire in the latter part of August, have taught me that if Dr. Squire's catheter could be so devised as to to be left *in situ* for at least one night, so constructed with a valve as not to inconvenience the patient by wetting his garments, this improvement would facilitate the cure, and render the physician's work lighter.

I asked Mr. Schmidt to modify said catheter, by having a stopcock and nozzle, so that, after a few hours of retention, the patient, by turning the nozzle, might relieve himself of the accumulated urine in the bladder, leaving it *in situ* until the morning visit of the physician, when it could be removed, and the patient left free for the day.



Messrs. Stohlmann, Pfarre & Co have kindly made one after my suggestion, to which I annex a diagram and description.

Letter (*a*) is a regulating screw, by which the links can be made firm or slack to any degree.

Letter (*b*) is a stopcock, with nozzle for the escape of urine, as indicated by the dart. Whenever the two buttons (*c*) stand parallel, the stopcock is then open for the evacuation of urine; but when the nozzle of the stopcock is turned up, or to either side, the escape of urine is entirely prevented.

By removing the ring and the screw button (*a*), the instrument can be easily taken apart and cleaned. The whole instrument should be of good silver, and all the links of the chain of hard silver soldered to withstand the corrosive action of the acid urine.

To prevent the urethra from being injured, the links of the catheter are so countersunk as to form an even surface, like the probe of Prof. L. A. Sayre of this city. This catheter has been tried in an ox's bladder full of water, with a heavy pressure upon it, and has been found perfectly air-tight.

643 Lexington Avenue.

Memorial to Jenner.—A memorial window, to cost £500, is to be erected to Jenner, in a window of the church in Berkeley, England, his birth-place.

AN ACT

TO PROTECT THE PEOPLE AGAINST QUACKERY AND CRIME.

Whereas, It is generally conceded that voluntary associations of medical men, especially if organized under State laws, have hitherto exerted a very marked influence in the elevation both of the professional and moral standard of their members, for the public good, the State and County Medical Societies of this State having been especially conducive to such results;

And *whereas*, Duly authorized and chartered medical colleges and universities in this country, and in other countries, provide ample and available means for the proper and the essential education of those who undertake to treat the diseases and the injuries of the people, thus rendering the illegitimate and fraudulent use of their privileges and their diplomas both inexcusable and criminal;

And *whereas*, Existing laws do not confer power and authority upon the aforesaid volunteer medical societies, organized under State law, which will enable them to efficiently guard the public against ignorant and criminal practitioners of medicine, surgery, or midwifery, who are mostly without the diplomas of any medical college or university, or are in fraudulent possession of the same, said medical colleges or universities being totally unable to reach or control this debased and dangerous class of practitioners: therefore, *for the public protection, be it enacted:*

Section 1. That the existing County Medical Societies of the various counties of this State, organized and incorporated under its laws, and all such county medical societies as may hereafter be so organized and incorporated, shall continue and shall be bodies corporate and politic, in fact and in name, by the name recorded in their respective articles of incorporation, and by that name shall be known in law and in all courts and places, and in all matters and causes whatsoever, and shall and may have their respective seals, and may alter and renew the same at their pleasure, and that the president, vice-president, secretary, and treasurer of such incorporated societies shall hold their offices for one year, and until others shall be chosen in their places.

Section 2. *And be it further enacted*, That the existing organized and incorporated State medical societies of the State of New York shall continue to be bodies politic and corporate, in fact and in name, and by the name recorded in their respective articles of incorporation shall be known in law and in all courts and places, and in all matters and causes whatsoever, and shall and may have and use their respective seals, and may change and alter the same at their pleasure; and that the said State societies shall be composed of delegates elected by ballot from each of the aforesaid county medical societies of the State, the number from each such county medical society to equal the number of members of assembly from such county.

Also of delegates from other chartered and legally organized medical societies in the State, and from the chartered medical colleges of the State, the number from each of such institutions to be determined by the respective State societies; and all of such delegates, when met at the time and place appointed by the respective societies for that purpose, and being met, not less than fifteen in number, may annually elect by ballot a president, vice-president, secretary, and treasurer, who shall hold their offices for one year, and until others be chosen to take their places. Said State societies may annually elect from those who have served as delegates, and have been nominated and declared eligible at a previous annual meeting, two per-

manent members from each of the senatorial districts, but no delegate shall be elected a permanent member until the last year of his term, unless he shall have previously resigned his place as delegate. They may also, at the annual meeting, elect eminent physicians from other States, or from foreign countries, as honorary members. They must have been nominated at a previous annual meeting, and those elected shall not exceed six in number in any year.

The governor and lieutenant-governor of the State, the judges of the higher courts during their term of office, and all members of the legislature who are physicians, and all former delegates to the society, shall be, *ex-officio*, honorary members. The society may also invite physicians who are present at any meeting to take seats as honorary members

Permanent members shall have the same privileges as delegates.

Honorary members shall have the privilege of a seat at the meetings, and of taking part in discussions, but they shall not vote on any question, nor be eligible to any office; and said State societies shall annually elect one censor from each senatorial district of the State, any three of whom shall constitute a quorum, and they shall be styled State Censors of the respective state medical societies which elect them.

It is hereby made the duty of the secretary of each of the county medical societies to lodge in the office of the clerk of their respective counties, if not already done, a copy of all the proceedings had at their first meeting; and it shall also be the duty of the secretary of the Medical Society of the State of New York, in like manner, to lodge in the office of the Secretary of this State a copy of their proceedings had at their first general meeting; but should this be impracticable in either case, then a copy of all the proceedings had at the first meeting after the passage of this act; and said clerks and said secretary are hereby required to preserve a record of the same in their respective offices, for which they may charge fifty cents.

And furthermore, the secretary and the treasurer of each of the aforesaid societies shall perform such other duties as may be ordered by the respective societies from time to time, and shall receive such remuneration for their services as the said respective societies may determine. Said societies may determine and annually collect such assessments from their members as the management of said society may require.

Section 3.—*And be it further enacted*, That the several county medical societies of this State shall, at their next annual meeting, elect by ballot five competent members, from each of such societies, for censors, whose duty it shall be to secure the faithful execution of the provisions of this act in their respective counties. The term of office of the aforesaid censors shall be respectively *one*, *two*, *three*, *four*, and *five* years, decided by lot immediately after their election: and the vacancy occurring each subsequent year shall be filled at the annual elections, by electing one censor whose term of office shall be five years. The censors now in office in the various county societies of the State shall continue in office till the next annual election, and shall discharge the duties prescribed by this act till their successors in office be elected; and vacancies occurring in said body of censors by removal, resignation, or death, may be filled at any stated meeting, by an election as at the annual meeting, the person thus elected filling the vacancy during the unexpired term.

Section 4.—*And be it further enacted*, That it shall be the duty of the aforesaid censors, and they are hereby empowered, *at their discretion* to summon before them, and to examine relative to professional qualifications, any person or persons resident in their respective counties, who, by sign or advertisement, or by any means whatever, offer their services to the public as practitioners of either medicine, surgery, or midwifery, or who by such sign or advertisement simply style themselves Doctor; and if such examination satisfy said censors that the person examined is qualified to practise, said censors may issue a certificate to such person expressive of the branches of the medical art they find said person qualified to practise, and such certificate shall be lawful authority throughout this State to practise in all the branches of medicine therein mentioned; and any such certificate, permitting to practice medicine or surgery, shall be accepted by the various county medical societies as sufficient evidence of professional qualification for membership in them. Said censors may also revoke any certificate so granted if, in their judgment, the person holding it has, by crime or misdemeanor, forfeited all right to the public confidence; and the aforesaid censors shall keep a book or register, in which they shall enter the names, place of business, name of the college, or other source of the diploma or license, of all to whom they issue the aforesaid certificates.

Section 5.—*And be it further enacted*, That every practitioner of medicine, surgery, or midwifery in the State, shall be required, and they are hereby commanded, to obtain the aforesaid certificate from the censors of some county or State medical society of this State, which certificate shall set forth that said censors have found the person to whom it was issued qualified to practise all of the branches of the medical art mentioned in it; and said certificate must be recorded in a book provided and kept for the purpose by the county clerk of each county in the State. Said book so provided and kept in the county clerk's office, shall bear the title and inscription, and shall be called the *Medical Register* of the respective county in which it is kept; and it shall provide for the name, in full, of the person whose certificate is therein recorded, date and place of its issue, branches of the medical art it permits to practise, names of the censors who have signed it, and a place for such additional remarks as may be of public interest; and for making such record the county clerk may collect twenty-five cents. The aforesaid *Medical Register* shall be always accessible, for reference, to all registered physicians, surgeons, and midwives of this State; and any person who shall practise medicine, surgery, or midwifery in the State, whose certificate from the censors of some county medical society of the State is not found recorded in the aforesaid *Medical Register* of the county wherein such person is actually practising, may be proceeded against for violation of the provisions of this act.

Section 6.—*And be it further enacted*, That in the exercise of the discretionary power permitted by the fourth section of this act, the said censors may register the names of, and issue certificates to, all physicians or surgeons admitted to membership in their respective county medical societies, without examination.

And also to all such persons as may furnish evidence, by diploma from some medical college or university, or by certificate from a county medical society of the State, which shall satisfy said censors that the person so presenting credentials is properly and adequately educated to practise the branches to which such person pretends, and the certificate so issued by the censors of any county medical society of this State shall, unless it have been previously revoked by such society, be valid for all the purposes of this act, in every county of this State; and for neglect or failure to record the same in the aforesaid county medical

register of the county in which the person holding it is actually practising, the person so neglecting, thirty days after due notification, shall be liable to a fine of $25, which the president of any county medical society may sue for and collect, and such fine, when collected, shall be placed in the hands of the treasurer of such society, as part of its funds.

Section 7.—*And be it further enacted*, That in the case of any county of the State not having a county medical society organized under the State law, it shall be lawful, and is hereby declared to be the duty of the censors of the county medical society nearest adjoining, to see that the provisions of this act be enforced in the county so without a medical society, till such county, by the organization of a medical society, shall qualify itself for the discharge of the duties herein imposed.

Section 8.—*And be it further enacted*, That the censors of each county medical society aforesaid shall notify the resident practitioners of medicine, surgery, and midwifery in their respective counties, of the terms and requirements of this act, and shall request such persons, so notified, to comply with those requirements within thirty days after such notification; and if such person shall not, within the time specified in the notice, or within such further time as may be allowed by special arrangement with said censors, not exceeding ninety days, comply with the requirements herein made of physicians, surgeons, or midwives, as the case may be, such person shall thereafter be subject to all the provisions and penalties prescribed by this act for any violation of the same, and the president of any of the aforesaid county medical societies may, and they are hereby required to, at once commence the proceedings, authorized by this act, against such person.

Section 9.—*And be it further enacted*, That it is hereby declared a misdemeanor for any person to practise medicine, surgery, and midwifery in this State, unless authorized so to do by a license or diploma as herein described, which shall be approved by the aforesaid censors; and who shall not have a certificate from said censors, either expressive of such approval, or of the qualification of such person to practise all the branches named in such certificate, ascertained by an examination either by the censors of the State or county society as herein specified; and any person found guilty of such misdemeanor shall be punished by imprisonment not less than one month, nor more than one year, or by a fine of five hundred dollars, at the discretion of the court before whom such person may be convicted; and all such fines, when collected, shall go into the treasury of the county medical society bringing the action.

Section 10.—*And be it further enacted*, That the aforesaid medical societies shall have exclusive control of the requirements for membership in their respective organizations; shall have power to adopt such rules, regulations, and by-laws for the government of the societies, for the management of their affairs, for the admission, for the discipline, and for the expulsion of members as a majority of their respective members, at a stated or at an annual meeting, may determine; but any member of a county medical society, or any applicant for membership thereto, or any person feeling aggrieved by any action taken by such society, shall have the right to appeal to the State medical society receiving delegates from the county society so aggrieving; but such appeal shall not relieve any such person from the liabilities imposed by this act, till the censors of such State society decide the question at issue in favor of the appellant.

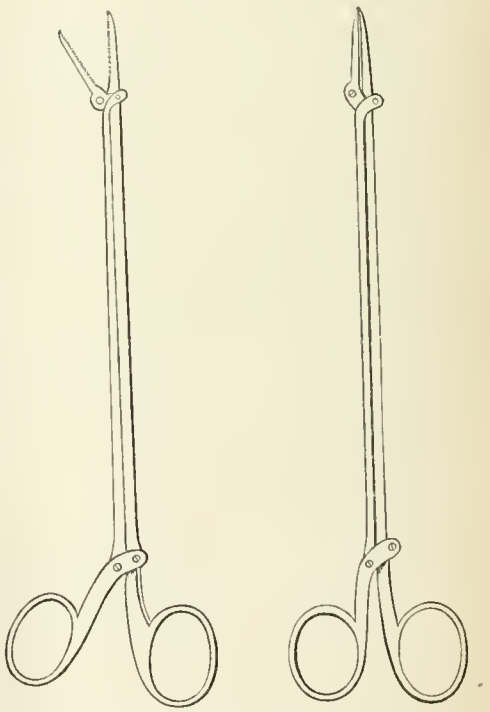
Section 11.—*And be it further enacted*, That all necessary expense incurred in the execution of this act shall be paid by the treasurer of the respective county medical societies contracting such expense, except in cases where such expense may be for service in a county having no such medical society, in which case the county treasurer of the county without such medical society shall pay all necessary expense.

Section 12.—*And be it further enacted*, That all acts or parts of acts inconsistent with this act are hereby repealed.

Section 13.—This act shall take effect immediately.

Progress of Medical Science.

A New Urethral Forceps, constructed by Mathieu, of Paris, appears to possess advantages which render it useful not only for the extraction of fragments of calculi and other foreign bodies from the urinary passage, but also in operations about the throat, nares, etc., where the distance to which the handles of some forceps require to be separated, in order to grasp an object, puts their use beyond the range of possibilities.



The shaft of the instrument can be made curved, if necessary, without involving the principle of construction.

Chloroform an Ineligible Agent for Robbers.—Dr. Stephen Rogers, of New York, in a reprint on "Can Chloroform be used to facilitate Robbery?" records some facts which prove it to be an ineligible agent for the use of robbers. 1st. As to its use to promote the greater security from the disturbance of the sleeper, even were that practicable, the very time that would be consumed in the gradual and cautious administration of the vapor—the only possible theoretical manner of accomplishing it—would so increase the danger of detec-

tion that few thieves would think of employing it. 2d. During the course of the administration of chloroform, whatever manner may be adopted, the patient or subject, as a rule, becomes excited, often very violent and turbulent, with an irrepressible propensity to sing or shout, which is often so loud as to alarm the inmates of the whole house. He is in a state of wild chloroformic intoxication. The exceptions to this rule are so few that no prudent thief would think of running the risk of not meeting one of those exceptions. 3d. Supposing the two preceding obstacles overcome, and the victim thoroughly quieted into a narcotic sleep, a third and very frequent complication arises: he begins to vomit, and, while he does not generally make much noise about it, still he may, and he always requires attention lest fatal strangulation occur. The knowledge, among the criminal classes, that the abandonment of their victim with a towel still over his face, and to the liabilities of vomiting and strangulation, would often add the crime of murder to that of robbery, would have great effect in deterring them from the further employment of it.

Infusion of Tobacco in Vaginitis is recommended by Dr. Lombe Athill, who says that he has very frequently had excellent results in his practice from using it as an injection, with the addition of two or three drachms. In two cases in which the opening of the vagina was very small, and some of the infusion was retained, the doctor has observed some faintness and nausea.—*Press and Circular.*

Ovarian Tumor at the Age of Three Years.— *The Lancet* of December 16 contains the report of an operation by Mr. Alcock for the removal of an ovarian tumor from a child of this age, the disease having commenced a year and a half previously. Death followed about forty-eight hours after the operation.

Hypodermic Injection of Ergotin.—Dr. C. Currie Ritchie, of Manchester, reports in *The Practitioner*, for December, nine cases of hæmoptysis in which the bleeding was promptly arrested by a hypodermic injection of a five-grain solution of ergotin. In but one or two of the cases was a second dose required.

Destruction of Right Anterior Lobe of Brain without Paralysis.—The *Gazette Médicale* of Paris, of November 11, contains a notice of a case of this nature in a man aged 32 years, who suffered a comminuted fracture of the head and face, and destruction of the whole of the right anterior lobe of the brain, without presenting any signs of paralysis or loss of intelligence until his death, which took place on the sixth day after the injury.

Hebra on Prurigo, Eczema, and Varicella.—Prof. Hebra announced in one of his recent cliniques that:—1. About 96 per cent. of the parents of children affected with prurigo die phthisical. 2. Very frequently, women who have for a long time suffered with eczema of the scalp, are, in their old age, affected with cancer. 3. Variola and varicella have between them no essential differences as regards contagion. *He has had occasion to see a severe epidemic of variola follow a single case of contagion of varicella!!—Gazette Méd. de Paris.*

Extra-Uterine Fœtation.—Dr. Thomas C. Lawton, of Cranston, R. I. (*Boston Med. and Surg. Journ.*), reports an unusual case of extra-uterine fœtation. The patient, aged 62, died recently; and on *post-mortem* examination a fœtus, weighing 4½ pounds, was discovered at large in the abdomen, which had been considered a movable tumor by nine physicians. This had been borne by the mother for 29 years, and always declared by her while living to be a child.

The Use of Calabar Bean in Diphtheritic Paralysis of the Accommodation.—Prof. Manz of Freiburg notices that the pupil is generally but little affected in these cases, and finds that oft-repeated weak solutions of Calabar bean (Calabar bean paper) effects more permanently beneficial results than the use of strong ones, and that recovery from the paralysis—which tends naturally to take place—is very much quickened by the use of this remedy.—*Monatsblatt für Augenheilk.*, September, 1870.

Lead Poisoning as a Cause of Optic Neuritis.—Mr. Jonathan Hutchinson narrates five cases of defective vision occurring in patients affected with lead-poisoning, in all of whom the presence or previous existence of inflammation of the optic nerve was revealed on ophthalmoscopic examination. Numerous cases of this kind have been recorded in the German medical journals, but this form of amaurosis does not appear to have attracted much attention elsewhere.—*Royal London Ophthalmic Hospital Reports.*

Phosphuretted Oil in the Treatment of Cataract.—Prof. Gioppi, of Padua, reports six cases of cataract in which he used phosphuretted oil, two being cases of soft, the others of senile cataract. The oil was employed for two weeks, four to six times daily, in the form of drops, in the eye and as an inunction to the circumorbital region, and internally, and no local or general effects were observed to take place, the lens remaining the same.—*Giornale d' Oftalmologia* and *Edinburgh Medical Journal.*

The Miasm of the Pontine Marshes.—Mr. Balestra, in a series of investigations upon the nature and origin of the miasma of the Pontine marshes, found the stagnant waters filled with organisms of various species, and among them one in particular, which was abundant in proportion to the degree of putrefaction in the water. This is a small alga, which floats on the surface of the water and presents the appearance of drops of oil. At a low temperature these germinate very slowly; but during the warm weather, and when exposed to the air, they reproduce very rapidly. The author, finding that the addition of a small quantity of arsenious acid, or sulphate of soda, or (still better) of the neutral sulphate of quinine, destroyed the vitality of this plant, infers that the miasma of the marshes is due to its existence and propagation; and that the well-known agency of these medicaments in curing fever depends upon their chemical action upon the plant which causes it, especially as its spores are found to be disseminated everywhere through the atmosphere. The plant is not developed in a dry season, although it makes its appearance in great quantity during moderately rainy weather occurring in a warm season. The non-occurrence of the fever in the winter, according to the author, is due less to the cold, which prevents the vegetation of the plant, or retards the decomposition of organic substances, than to the abundance of the rain which covers the places where these spores exist, their dissemination into the atmosphere being thereby prevented, and only facilitated by the drying up of the soil which allows the spores to float readily.—*Nature.*

Obstructed Labor.—Fibrous Tumor of the Uterus.—Craniotomy.—Dr. Alexander C. Graham, of this city, reports the following interesting case:—On the night of July 13, 1870, I was sent for in haste to see Mrs. H. G., Allen street, in labor with her fourth child. I found the patient a strong, muscular German woman, 45 years of age, though she was now much exhausted. The membranes had ruptured nine hours previous—a short time after the beginning of the labor; the cervix was well dilated, the pelvis roomy

and the soft parts natural. The vertex was occupying the superior strait in the left occipito-anterior position. The pains had been strong, but had ceased entirely a short time before, and a midwife who had been in attendance had administered several doses of ergot.

On making an external examination I found a very peculiar conformation of the abdomen. There were two well-marked prominences, separated by a deep sulcus. The lower one was just above the symphysis pubis, as large as a fœtal head, smooth, and of a globular shape. The other was directly above the former, larger, and of an irregular outline like that of a fœtus.

I supposed I had to deal with twins, though I could hear but one fœtal heart, below and to the left of the umbilicus, and very indistinct. The patient had passed her water a short time before, but on attempting to pass a catheter it was arrested some distance from the meatus.

No progress being made, I called in Dr. Wm. H. Johnston, introduced the blades of the forceps without any difficulty, and locked them perfectly; but as soon as a moderate amount of traction was employed the instrument slipped off: several more attempts were made with no avail. The patient was now becoming very much exhausted, and, with the consent of her husband, craniotomy was performed, and a large well-developed child delivered. We immediately made an examination, and found a fibrous tumor as large as a fœtal head attached to, or imbedded in, the anterior wall of the body of the uterus. A small placenta came away, and no hemorrhage succeeded.

Patient did not rally afterward, notwithstanding stimulants by the mouth and rectum—hot bottles and frictions, with tincture of capsicum. She died four hours after delivery, but no autopsy could be obtained. I learned now that the patient's first two labors had been natural: in the third, five years previous, forceps had been used, and the child was still-born. Since then she had complained of pain in the right iliac region, and had noticed a tumor in the hypogastrium gradually increasing in size.

Favus Treated with Sulphur and Charcoal Ointment.—Dr. Sivus Pironde, of Marseilles (*Marseille Méd.*), says that if favus has not yet attacked the whole of the hairy scalp, and if the little crusts are somewhat isolated from one another, we may sometimes destroy the parasite without epilation, and recommends for this purpose, after the crusts have been softened with an emollient lotion, the application of a mixture of equal parts of sulphur and charcoal, the sulphur incorporated with a sufficient quantity of lard. The doctor says that the rapidity with which good results have followed the application of this ointment have been surprising. The charcoal appears to deprive the crusts of odor, and the sulphur to attack the achorion.—*The Doctor, of* Nov. 1st.

Phosphorus Pills.—The following formula for the administration of phosphorus originated with Dr. Radcliffe. Take of phosphorus six grains, suet six hundred grains; melt the suet in a stoppered bottle capable of holding twice the quantity indicated; put in the phosphorus, and when liquid, agitate the mixture until it becomes solid, divide into three-grain pills, and cover with gelatine. Each pill will contain one-thirty-third part of a grain of phosphorus.—*Ibid.*

Urticaria.—The following is the treatment of urticaria recommended by the *Journal des Connaissances Médicales*:—Alkaline baths of bicarbonate of soda (300 to 500 grammes), lotions of vinegar and water (one part of vinegar to three of water), to be applied to the affected region with a sponge when the itching and tingling are excessive. Prurigo, as well as urticaria, yields usually to three or four baths made of 20 grammes of corrosive sublimate dissolved in 100 grammes of alcohol at 90 deg. C., to which 300 grammes of distilled water is added. This mixture is put into water ordinarily used for a bath. Acidulated drinks should be used during the treatment. Meats and vegetables containing nitrogen, such as cabbage, should be avoided.—*Ibid.*

Ammonia Treatment of Snake-Bite.—*The Indian Medical Gazette* says that a report furnished by the Inspector of Police to the Bengal Government shows that of 939 cases of snake-bites in which ammonia was administered by the police, 702 are reported to have recovered, and the average length of time between the bite and the application of the ammonia is said to have been, in fatal cases, 4h. 12m. 13s., and in cases of recovery 3h. 28m. 14s.

Chloromethyl as an Anæsthetic.—According to a report by Dr. Rossi, experiments instituted at the University of Padua upon the use of the bichloride of methylene as an anæsthetic showed that out of 108 operations, in only 8 was there any vomiting, and that in every respect this chloromethyl should have preference over chloroform for surgical purposes, having for the last three years replaced both chloroform and ether in that city. The London *Medical Times and Gazette* gives the experience of Mr. Spencer Wells in 250 operations with this substance, showing a close coincidence in general results with those of the Italian operators.—*The Doctor.*

Alcohol without Fermentation.—M. G. Bouchardat, son of the Professor of Hygiene, has succeeded in obtaining alcohol by a chemical process without fermentation, by submitting sugar to the action of nascent hydrogen. Several varieties of alcohol are produced among other results of the decomposition.—*Gaz. Med. de Paris.*

Alterations in the Non-Striated Muscular Fibres of the Skin.—The smooth muscular fibres undergo changes in a certain number of diseases of the skin, several of which have already been noted by observers. In variola, tumefaction of these fibres is sufficiently marked to be met with in examinations on the level of the pustules. This form of hypertrophy differs from that met with in lichen, ichthyosis, elephantiasis, prurigo, and sclerema in the adult, as has been demonstrated by Derby, Rossbach, and Köbner. In these latter cases it is not easy to determine if the hypertrophy is simple or multiple; in fact the fibres, like the nuclei, are hypertrophied, and the muscular fascia becomes more voluminous throughout. This augmentation of volume is, without doubt, consecutive. Derby thinks it is consequent upon exaggerated contractions of the non-striated muscles whose function it is to express the secretions from the sebaceous follicles. In specimens which are quite contracted these changes appear to involve the whole thickness of the muscular layer, there appearing to be, in some cases, a new formation of these elements. The organic muscles sometimes undergo atrophy. This also takes place in both fibre-cells and nuclei, a fine granular deposit taking place, which, with the cell-contents being later on absorbed, leaves the fibres and nuclei collapsed. This latter process is characteristic of senile atrophy of the skin.—J. Neumann in the *Allgem. Wiener Med. Zeitung.*

The Medical Record.

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THE CARE OF OUR FOUNDLINGS.

The recent opening of a new lying-in asylum and foundling hospital in this city is a suggestive fact, bearing either upon the ignorance of certain parties having the matter in hand, or to their persistent stupidity in refusing to learn from the experience of others. The necessity for the care of abandoned children has been admitted by every class of the community, but how this necessity may best be met is, in this country at least, an open question.

On previous occasions we have presented facts, founded on statistics, proving the high rate of mortality which exists in foundling institutions as a class, and which were in the main based on observations and remarks in a paper by Prof. Jacobi, of this city, "On the Raising and Education of Abandoned Children in Europe." We are reminded of those remarks, not only by the founding of the new asylum, but by another paper by the same gentleman, containing a reiteration of sentiments and additional facts corroborating them. Aside from this, it appears very opportune to refer to the subject afresh, with the view of directing attention to this very important subject, in the hope that the profession may be prepared to stem the tide of popular feeling in regard to the erection of foundling institutions, and to divert it into a more practical and useful channel.

Connected with the subject are considerations of the highest importance to understand and to appreciate. The first has a direct reference to the customary association of lying-in asylums with foundling institutions. Such a connection of the two would on its face seem to be eminently proper, to such as do not care to examine into its results upon the health of the infants. But what are the stubborn facts in the case? Every one, in common with Prof. Jacobi, who has profited by the experience which statistics afford, affirms that a lying-in asylum will not only generate diseases with great certainty and rapidity, but will do more towards originating and propagating diseases among the infants in adjoining apartments, than any other hospital. Common observation has established this as a truism, and no enlightened or experienced physician will pretend to offer any arguments in favor of such a combination.

But, leaving this out of the question, admitting the evil effects of the proximity of lying-in apartments, we may for the sake of the argument narrow ourselves to foundling institutions by themselves. Concerning the direct influences which these may have upon the mortality of infants, Dr. Jacobi has already given us some valuable and interesting statistics, and in his recent paper on the same subject, read before the Medical Society of the County of New York, January, 1872,* he has laid the profession under renewed obligations for his painstaking endeavors to elucidate the subject still further, by additional testimony against foundling institutions as such. We shall take occasion, in the course of our remarks, to quote various portions of this valuable paper, while at the same time we commend the views of the author to the thoughtful consideration of the physician and the legislator, in the hope that the plans suggested by him, and approved by the experience of European countries, may receive the attention which they deserve.

In regard to the direct influence of foundling institutions upon the health and mortality of the inmates he says:—

"Places inhabited by many can never yield an atmosphere as fit for breathing as well-kept private residences. Moreover, young infants, in consequence of their delicate constitution, and their not producing vital warmth by physical exercise, are confined to the house and room during the greater part of the year and day. Besides, offensive admixtures to the atmosphere of rooms in which many children are living cannot be avoided. Even the institutions in which adults are kept suffer from the same influences, to such an extent that not unfrequently the very entrance into such a place is a guarantee of imminent disease, and portions of hospitals have sometimes to be closed. Alvine discharges and urine contaminate the air of infants' wards to a considerable degree. From this source originate the numerous cases of poor sanguification, and of constitutional diseases, such as rickets, scrofula, etc., even typhoid fever and scurvy; from this source comes part of the really immense mortality of foundling hospitals. Whenever the attempt is made to correct this cause of disease and death, you will find that this attempt is punished at once. Ventilation is never complete except by opening windows. To relieve the wards of their unbearable stench—I advise you to visit a large, fine-looking, whitewashed, clean ward in a foundling hospital, in a Nursery and Child's Hospital, at 6 A.M.—you open the window, and in come the enemies of mucous membranes—intestinal catarrh, entero-colitis, bronchial catarrh, pneumonia. Of 88 deaths in the Nursery and Child's Hospital which I shall specify to you, more than 40 are due exclusively, or partially, to pneumonia."

Again, in his reference to the care of infants, their food, etc., in the Nursery and Child's Hospital, the

* *New York Medical Journal*, January, 1872.

author speaks, as the result of direct and careful observation, when he says:—

"That a baby should live and thrive on artificial food, in a private family, is by no means a rare occurrence. Every attentive person, every medical man, has ample opportunities for such observations. That, however, bottle-fed babies in a public institution should survive, is a rare exception. In the wards of infants' hospitals everywhere the receiving of a baby in the purely bottle-fed department is acknowledged by all as amounting to a sentence of slow death. Moreover, the only article of food without which a baby could not be kept alive, viz., milk, can be more readily and more regularly procured by the poorest countrywoman than by the richest and most circumspect institution."

As a result of a careful statistical study of the well-kept records of this institution for a given quarter, he remarks:—

"Now, then, there are 10 deaths quarterly in 80 children, each one 4 to 5 months old at the date of admission. Grand total of 50 per cent. deaths yearly of children of 4 to 5 months and upward to 2 years. Statistics prove that the mortality of the infants born alive, from the date of birth to the fifth month, is larger than that of infants between that age and 2 years. Of 3 infants who die before the termination of their first year, 2 are less than 5 months old, and one is between 5 and 12; and, of 31 who die before the end of their second year, 26 have not reached the end of the first, and but 5 die between their first and second year. Thus, of the above 50 per cent., 8 would belong to the second year, 42 to the first. They were admitted at a time of life when mortality is but half of what it is in the first months. Thus it appears that the mortality of the Nursery, if all of the admitted infants were new-born instead of being 4 to 5 months old, would be so appalling that I am glad I am not required to state its exact figures. The worst figures of the European foundling-hells of former centuries are not more fearful than ours, and, although being an officer of that institution myself, and believing that I and all the rest of us have conscientiously tried to do our duty, I cannot but testify and bow down to the truth, that, in spite of all the efforts of the medical staff, and the painstakings of kind-hearted ladies, the probability of the lives of children intrusted to a public institution is very slim indeed. The younger the children, and the larger the institution, the surer is death. Every story added to an edifice which is meant to be a temple of love is an additional hecatomb of the innocents. Modern civilization, planning for the best, but mistaken about the means, has succeeded in out-Heroding Herod."

In another careful examination of statistics of the same institution for a period of a year, he shows that the mortality of babies intrusted in good health to the Nursery at the age of nearly three months, is 66 26 per cent!

It is useless to travel through the columns of figures which are presented to us by Dr. Jacobi; suffice it to say that their results tend substantially to the same end, that the mortality in the Nursery Hospitals is frightful, and inexplicable by anything save the construction of the edifices, and the manner in which all similar institutions must be conducted. Taking the Nursery and Child's Hospital as the type of a carefully regulated hospital of its kind, and we find the mortality of the little ones increased to a degree which admits of no comparison with the statistics from other countries. This fact is made particularly apparent by a reference to the following statement in the report from which we have already so freely quoted:—

"According to Farr, of 392,224 children born in England in 1867, there died before the end of their first year 65,464, viz., 16.69 per cent. According to Prof. Ritter, of Prague, the mortality during the first year of legitimate and illegitimate children born alive in 1855–1861 was 25.36 per cent. in the Austrian Empire. In Hungary, considered separately, in 1862–1865, 24.95 per cent. In Berlin, according to Chamisso, the mortality of all the infants born alive from 1816 to 1841 was 22.7 per cent. up to the end of their first year (33.5 of the third, 36.9 of the fifth). The rate was lower in 1842–1860; but in 1861–1866 it was 28.4 per cent."

In view of all these facts it becomes every candid observer to answer the question for himself, whether or not our legislators should be encouraged to donate funds for the endowment of such hospitals. We may admit that the managers of these institutions are misguided in their efforts to do a charity, and to serve the interest of the rising generation, but is it not time for disinterested parties to look at the question in its really serious aspect? If would-be managers must have stately and costly buildings, if they can find legislators who will use their influence in their favor, and procure the necessary moneys for the erection of such buildings, we may not prevent them; except as a matter of opinion, we may not object to the extravagance; but may we not hope, in behalf of the poor foundlings, that none of their little beds be occupied. If we are really to look after the best interest of these helpless ones, let these stately hospitals either be empty, or appropriated to some other less destructive purpose.

But what is to be done with the foundling, if no safe place can be found for it in a well-appointed nursery? The statistics of Europe answer this question in a very unqualified way. The nurseries of the Old World have been converted into mere houses of reception, and the children are farmed out in the country districts. Experience in the different cities of Europe, as shown by the figures which are given us in the report, proves this plan to be best, *i. e.*, the one which, thus far, is attended with the least possible mortality.

It must be conceded that the same arguments which may be used against the accumulation of children in a nursery, and that nursery in the midst of a populated district, can be used to prove the advantages of rearing nurslings in the rural districts, and in scattering them among private families. We will not bind ourselves to general principles in settling this point, but will again claim the support of the statistical tables of Europe. One of these may be taken as a sample of the rest: M. Husson, of Paris, affirms as the result of a far-reaching and thoroughly trustworthy inquiry, that the mortality of the infants under one year of age sent out by the

"General Office of nurse children" is but seventeen per cent., but one per cent. more than the average mortality of the same age in all France! An examination of the statistical records of the various countries of Europe proves the fact, that the average rate of mortality in the country is 6.32 per cent. less than when the children are reared under precisely the same circumstances in the cities and larger towns.

The system most in favor in European countries is that of collecting the infants in the nurseries, and then transferring them to good wet-nurses living in the country districts adjoining. These nurses are regularly paid, visited, and suitably watched, all of which is done at comparatively small expense to the government. The central offices are supplied with wet-nurses who take the temporary charge of the nurslings until they are sent to the country. So strongly are the European authorities in favor of this very short stay in the nurseries, that they use every means to insure an immediate transfer of the infants to their country nurses, regarding the sojourn of even an extra day as an item of no inconsiderable importance. There may be many difficulties in the way of inaugurating the system, but we are satisfied that with the proper executive head the plan can be carried out. In order to reduce it to an effectual system, the whole administration of the foundlings should, as Dr. Jacobi suggests, be controlled by the commonwealth. "Private or sectarian establishments ought to be under governmental supervision; ought not to be supported or aided by the State, but not interfered with so long as their successes and general management appear satisfactory; the department of the foundlings to be centred in one office; the necessary appointments of the head, or heads, to be made by the Governor of the State. The expense of boarding the foundlings to be borne by the people of the State of New York."

The Medical Society of this State, at its last annual meeting, was much interested in devising some means of checking the frightful mortality in our nursery institutions, and to such an end appointed a committee (of which Dr. Jacobi is chairman) to prepare an answer to the different important questions that have arisen. He has forestalled his report somewhat by the paper which he has published, and we hope the members of the Society are, from the remarks which we have made, sufficiently informed of its purport to be able to vote upon the various propositions intelligently, and to use their influence with the Legislature to the end of sanctioning the plan of "farming out" by some suitable law. The expense *per capita* can with proper regulations be made much less under a well-organized executive than it now is in our expensively conducted private institutions, while the saving of infant life will be immense.

The Medico-Legal Society of this city has of late been more than ordinarily active in devising the means of properly protecting the people against quackery and the crimes which grow out of it. Composed as it is of members of both the legal and medical professions, it is peculiarly qualified for the work which it has undertaken. Heretofore one of the main troubles has been that medical societies proper, from the want of an intelligent examination of existing statutes, have not proved themselves capable, in their efforts to procure laws, of disposing, in a practical manner, of the technical objections to the enforcement of just penalties. This difficulty, we believe, has been overcome by a union of the two professions of law and medicine in the committees. The Society has given its attention, through such committees, to two very important subjects, not the least of which is one referring to a law for the proper punishment of abortionists. The committee having this matter specially in charge have examined the whole subject in a very thorough manner from a legal as well as medical standpoint, and have culminated their labors by recommending the following act, which has been endorsed unanimously by the Society:—

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The first section of an act entitled "An Act relating to the procurement of abortions and other like offences," passed May 6, 1869, is hereby amended, and shall read as follows:

Section 1. Any person who shall administer to any woman with child, or prescribe for any such woman, or advise or procure her to take any medicine, drug, substance, or thing whatever, or shall use or employ, or advise or procure her to submit to the use or employment of any instrument or other means whatsoever, with intent thereby to produce the miscarriage of any such woman, unless the same shall have been necessary to preserve her life or that of such child, shall, in case the death of such child or of such woman be thereby produced, be deemed guilty of a felony, and upon conviction shall be punished by imprisonment in a State prison for a term not less than four years.

Sec. 2. The eighth section of the first article of the second title of the first chapter of the fourth part of the Revised Statutes is hereby repealed.

Sec. 3. This act shall take effect immediately.

Committee:
- James J. O'Dea, M.D., *Chairman*,
- Elbridge T. Gerry,
- George F. Shrady, M.D.,
- William Shrady,
- Stephen Rogers, M.D., *ex officio member*,
- Gunning S. Bedford, *member by invitation*.

Every precaution has been taken to cover, by the wording of this Act, not only every direct offender, but every accessary before or after the fact. The punishment is fixed at not less than four years, but may be for as much longer a period as the Judge may deem proper, even to the limit of life.

As we go to press we learn that the Act has been

favorably received by both branches of the State Legislature, and will doubtless soon become a law.

The same Society, with the desire to do good in another direction, appointed two other committees—one to take up the consideration of the existing laws in this State relative to the medical profession, with a view to reform, and the other to inquire into and to report upon the subject of the right of the people to require that physicians, surgeons, and midwives be properly educated.

After these respective committees had met a number of times and separately worked at their tasks, it was suggested that as the whole subject pertained to the same public interest, the committees might advantageously be united. This suggestion was adopted. The joint committee was composed of Dr. T. C. Finnell, Joseph F. Miller, Esq., Vice-President of the Society; Dr. J. C. Peters, Alonzo Greene, Esq., Dr. Henry Raphael, O. H. Warfield, Esq., Hon. A. J. Delany, and Dr. R. J. O'Sullivan; Stephen Rogers, M.D., President of the Society, being *ex-officio* member of the committee.

After many meetings, and an amount of work which no one unacquainted with the subject of framing laws can appreciate, the draft of an act, which we publish in full in another place (*vide* page 536), was adopted by the joint committee, and, after discussion, endorsed by the Society, and ordered printed, preparatory to presentation to the Legislature. This, in conjunction with the law on abortion just presented by this Society, it is believed provide all needed protection to the people. At some future time we may take occasion to discuss the provisions of these proposed laws in detail, and attempt to prove their practicability.

The next meeting of the State Medical Society will be held at Albany, February 6. It is to be hoped that the number in attendance will be large, as many matters of interest will be presented for discussion. The President for the ensuing year must come from New York, and the Nominating Committee will have no easy task in making a selection from the number of available candidates that will be presented. The Society could not have elected a better presiding officer from the central part of the State than the present incumbent, Dr. William C. Wey, of Elmira, and it is believed that the City of New York can make an equally happy and acceptable choice in a candidate. So much, however, depends upon the proper selection of the Nominating Committee, that it is no easy task to foretell who the canditate may be. Judging from the past record of Dr. Wey, we have no doubt that the selection of said Committee will be judicious, impartial, and subservient to the best interests of the Society. Especial care, however, must be exercised in the choice of the member from New York, who must be a gentleman in whose judgment the delegates from this city have the utmost confidence.

Reviews and Notices of Books.

Principles and Practice of Surgery. By John Ashhurst, Jr., M.D., Surgeon to the Episcopal Hospital, Surgeon to the Children's Hospital, etc. Illustrated with five hundred and thirty-three engravings on wood. 8vo, pp. 951. Philadelphia: Henry C. Lea. 1871.

The object of this work, as its title and preface declare, is to "furnish in as concise a manner as may be compatible with clearness, a condensed description of the modes of practice now generally employed in the treatment of surgical affections, with a plain exposition of the principles upon which those modes of practice are based." How far the learned author has fulfilled his pledge will be determined by the verdict of the profession, and we on our part shall proceed to examine and pass judgment to the best of our ability at such length as the space at our command permits. The opening chapter on inflammation is well written, comprehensive, and thoughtful, and while refraining from dogmatism, conveys distinctly the practical conclusions of a careful student and good observer. The various modern theories, including those of Virchow, Simon, Bilroth, Cohnheim, and others receive their due consideration, are intelligibly stated, and have evidently been carefully weighed and measured by the mind of the writer. We find nothing from which to dissent in the chapter on the treatment of inflammation. We heartily concur in the recommendation to sustain nutrition and employ appropriate stimulants. We regret that he has not discussed the therapeutic value of aconite and the persulphate of iron internally in local inflammations, whether idiopathic or traumatic.

He may perhaps regard veratrum viride, which he recommends, as answering the same indication with aconite.

The advice to employ tonics in the later stages of inflammatory affections and during the effort of nature to repair the consequences of wasting and destructive processes is valuable, especially to young surgeons who are liable to overlook or undervalue their necessity and importance. "Operations in General, and Anæsthetics" next claim our attention, and in their treatment leave little to be desired or added. We agree with our author perfectly in his preference for ether over chloroform in ordinary surgical cases. The empirical notion that an anæsthetic should not be given when signs of fatty heart are present, is summarily and justly disposed of. If the case is a proper one for operation at all, risk will be diminished by the cautious use of the proper anæsthetic. The concurrent advice not to give ether or chloroform to a woman, unless in the presence of witnesses, is prudent and sensible, and we add our own counsel to the same effect in support of the author, if it can give any additional weight to a sound professional and social maxim. Indeed, we would go further, and say that no surgical examination or operation should be made or performed on the person of a female, without the presence of witnesses, or a confidential attendant. Hence we depreeate the facilities afforded by the self-retaining specula.

The subject of amputations occupies considerable space, and is thoroughly and well discussed. We consider it an objection, however, that the author does not forcibly urge amputation at the knee in preference to all other operations when practicable and required. He does not express a decided opinion regarding the removal of the condyles or articular cartilage. We do not see how there can be any difference of opinion

as to the essential value and importance of doing as little harm as possible to a patient, and leaving condyle and cartilage intact.

The stumps which we have seen in which this principle had been observed, have been among the most satisfactory in appearance and capacity for supporting the weight of the body.

"Effects of Injuries in General Wounds." This is an excellent chapter, replete with surgical wisdom, common sense, and good counsel. Gunshot wounds are intelligently appreciated, and the descriptions of the different kinds of accidents and the special regions most frequently implicated, are evidences of careful study and correct and extensive observation.

There is a remark we are fain to make, and one which, although it cannot be original, we never see in systematic works. It is, that the shoulder-joint will bear almost any surgical interference, the knee scracely none. Partial excisions of the shoulder do well, and make excellent recoveries and useful limbs. Partial excisions of the knee, or much operative interference with the joint, are either immediately fatal or bitterly resented by the economy. Excision of the knee, although rising in the favor of American surgeons, can scarcely ever become an operation adapted to acute or military surgery. It should, as a rule, be reserved for pathological cases, or traumatic cases which have become pathological by the lapse of time.

It is questionable whether excision is in any case preferable to a knee-joint amputation and one of Hudson's legs.

In the discussion of amputation in continuity, no reference is made to any of the propositions to hermetically seal the divided end of the bone by periosteal flaps or otherwise. This seems to us an important question, and one which should be made the subject of investigation and experiment by practical surgeons, especially since the experiment could not add to the risk of the patient.

In the article on "Injuries of Blood-Vessels," Dr. Ashhurst refers to the subject of *contusions of arteries*.

Bruising of the coats of an artery by external contusion, or by the touch or abrasion of its sheath by a missile in its passage through neighboring tissues, frequently induce complications unexpected and unrecognized. We have seen sloughing of the axillary plexus and death by hemorrhage as a result of this form of injury. The general and particular directions under this head are correct in principle, and in harmony with the highest standards of professional authority. "Fractures and Dislocations" contain nothing particularly new. The method of reduction of dislocation by manipulation is described, and the ordinary means and appliances made intelligible to the student both by text and illustration. We regard as an omission, no attempt to appreciate the method of Dr. Moore, of Buffalo, in the reduction and treatment of fractures near the wrist-joint, and we deprecate the continued recommendation of Nélaton's pistol-shaped splint. We would prefer that a surgeon should put a pistol to our head to clapping on our arm one of these time-honored instruments of torture.

Dr. Ashhurst does not seem to apprehend the advantages of counter-extension by means of broad straps of adhesive plaster applied longitudinally upon the anterior and posterior aspects of the body from the pelvis in front and the nates behind, with the weight depending over a pulley from the shoulder, and extension by a screw at the foot, attached to an elastic cord connected with the leg-bands in ordinary use.

We have one case in our mind of a youth treated in the manner indicated, in whom, after refracture (accidental) and recovery, no shortening could be detected by accurate and accomplished surgeons in this city, London, and Paris.

The perineal band and the muslin bandage ought to be forever discarded from treatment of fracture of the shaft of the femur when extension and counter-extension are to be employed.

No mention is made of Sayre's excellent plan of treating fracture of the clavicle with adhesive plaster. We have, however, to thank our author for discarding the useless and troublesome axillary pad.

Dr. Ashhurst takes decided ground as to the duality of the essential venereal diseases, regarding chancroid as absolutely distinct from syphilis, although liable to be complicated and confounded with the latter. The question is by no means settled. He adds nothing to our present knowledge, and we regret that he does not urge more strenuously the use of iron in both chancroidal and chancrous affections.

In syphilis, we consider iron, nutrition, tonics, and hygiene the *power*; mercury, iodine, arsenic, and potash the *rudder*. The chapter on "Injuries of the Head" is excellent. The appreciation of the distinctions between compression and concussion is fine, and the practical directions sound, surgical, and conservative.

We think this may perhaps be considered the best and most original section of the work.

The chapters on "Lithotrity" and "Lithotomy" are just and discriminating. Relief of retention by means of the capillary trocar and suction apparatus is briefly alluded to. We believe this method is destined to become the favorite mode when puncture is indispensable or advisable. Stricture and the accidents and injuries which diminish or obliterate the calibre of the urethra are very satisfactorily discussed. Credit is given to the labors of Van Buren, to whom is due more honor than to any other surgeon in America for his patient, studious, and scientific development of this branch of surgery, and to Gouley, who has popularized the steps of the operation, and made it easy and intelligible to every surgeon.

Our author is not quite willing to accept unhesitatingly the New York doctrine, which recognizes the advantages of leaving the urethra unencumbered by a catheter, which is simply a foreign and useless body, and a cause of irritation after lithotomy and those operations which are intended to restore the constricted canal to its former dimensions. Mason and Stein, as well as Van Buren and Gouley, and others among the most experienced and successful operators on the urethra, refrain from introducing instruments, whether after external or internal urethrotomy or divulsion (excepting the first exploratory sounding after operation), until the inflammation and irritation resulting from the use of instruments and manipulation have subsided. The results justify their philosophic boldness and disregard for prescriptive dicta. We regret that it is not in our power to enter more into detail in the examination of this work, and we cordially acknowledge its general excellence. It is Philadelphian rather than cosmopolitan in tone, but its author has evidently tested the writings and experiences of the past and present in the crucible of a careful, analytic, and honorable mind, and faithfully endeavored to bring his work up to the level of the highest standard of practical surgery. He is frank and definite, and gives us opinions, and generally sound ones, instead of a mere résumé of the opinions of others. He is conservative, but not hide-bound by authority. His style is clear, elegant, and scholarly. The work is an admirable text-book, and a useful book of reference. It is a credit to American professional literature, and one of the first

ripe fruits of the soil fertilized by the blood of our late unhappy war.

NEURALGIA AND THE DISEASES THAT RESEMBLE IT. By FRANCIS E. ANSTIE, M D. (Lond.), Fellow of the Royal College of Physicians; Hon. Fellow King's College, London; Senior Assistant Physician to Westminster Hospital, etc., etc. 8vo, pp. 296. London and N. Y.. Macmillan & Co. 1871.

THE diseases of the nervous system have assumed such importance to every practitioner, general or special, that any new ideas connected with pathology and treatment, especially if such be founded on careful observation or extended experience, are of more than ordinary value. The reason why these diseases have not been studied as they should be, is the difficulty of making the theories of mere experimenters accord with what is actually seen in every-day practice. Very rarely can the two qualities of investigation be combined in one person. Such a person the profession have found in the painstaking and conscientious Dr. Anstie, of London. His work upon neuralgia is one of the most interesting, instructive, and practical we have seen for a long time. We have given it careful reading and thoughtful study, and for a treatise of its size we are free to say that we have never met one that gives more of practical information and is fuller of useful suggestion. Aside from the admirable descriptions of the different forms of neuralgia, the body of the work has the intrinsic merit of being original as regards the pathology and etiology of the disease. The true pathology of the disease is, according to our author, centred in a change, molecular for the most part in the posterior roots of special nerves, a condition resembling that so often met with in autopsical examinations of locomotor ataxy, in which neuralgia is a uniform and distressing symptom. Our space will not permit us to follow the author in the discussion of this most interesting question; but we promise, for the investigating practitioner, who may wish to study this branch of the subject, a more than ordinary gratification in acquainting himself with the detailed reasons given, and the admirable manner in which the objections to the theory are disposed of. The treatment of the different forms of neuralgia now so generally accepted by neurologists accord with such views of the pathology and etiology, and make the work as a whole an invaluable one to every practitioner.

The work has been reprinted by D. Appleton & Co., but is of much smaller size and of a typographical execution that bears no comparison with the original.

A COMPENDIOUS GRAMMAR OF THE GREEK LANGUAGE. By ALPHEUS CROSBY, Professor Emeritus of the Greek Language and Literature in Dartmouth College. Woolworth, Ainsworth & Co., 51, 53, and 55 John St., New York. 1871.

THIS is a condensation of the author's larger Greek Grammar, which has now reached a 44th edition; but, as the preface tells us, "little of practical precept has been omitted from the text of the latter; . . . . even slight variations of phraseology have been avoided; . . . . and the division here made into sections and their parts, and the references to these, apply throughout to the fuller edition." The omissions are chiefly of examples, rare forms, and those theoretical discussions which we well remember so fascinated our boyhood that the book seemed to us the very poetry of grammar. In this, as in the larger work, a surprising degree of compression is combined with the greatest clearness, by the use of abbreviations, and of varied type; and the taste displayed in these minutiæ is no less marked than are the philosophical analysis and comprehensive method which characterize the work as a whole. That the book is from the Cambridge "University Press" is a sufficient guarantee of the beauty and the accuracy of its mechanical execution. We confidently recommend this as one of the best of our small number of really good Greek Grammars.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 21, 1871.

DR. E. R. PEASLEE, PRESIDENT, in the Chair.

THE PRESIDENT acknowledged the reception of contributions to the library, from the son of Dr. Civiale, of Paris, and Prof. Agassiz.

A letter from Dr. Prosordff, of St. Petersburg, Russia, was read by the Secretary, calling the attention of the Academy to an instrument for the transfusion of blood and other purposes.

DISCUSSION ON THE "NATURAL HISTORY OF YELLOW FEVER" CONTINUED.

DR. CHAS. P. RUSSELL remarked as follows: There are some interesting points in connection with yellow fever as it prevailed during the past year upon Governor's Island and in this city. *First.* As to its origin. Although the Committee appointed by the Board of Health to investigate its cause were inclined to ascribe it to infected articles thrown overboard from vessels lying at the Brooklyn docks, opposite Governor's Island, that explanation would scarcely seem adequate. Such articles, in most stages of the tide, would more naturally float with the powerful current in Buttermilk Channel than directly across it, and would consequently lodge, if anywhere in the vicinity, along the Brooklyn wharves or the Gowanus shore. The stringent military surveillance maintained over the island day and night would likewise have prevented infected materials from being smuggled across. The history of Rotten Row is suggestive of some pernicious local influence. If we accept Dr. Nott's assurance that the poison cannot be wafted by the wind, and if we admit the non-contagiousness of yellow fever, we are strongly driven toward one of two conclusions—either that the disease originated de novo within the tenements alluded to, or was due to the awakening of dormant germs deposited there in former years. Practically, the two hypotheses amount to the same thing, and point to the destruction by radical measures of that probable nest of still slumbering infection. The recommendation of the Board of Health to this end, although partially founded upon reports by army surgeons, was not met in the proper spirit by General McDowell, and Rotten Row still stands.

Secondly. As to the diagnosis of the disease. Although six fatal cases were demonstrated to have occurred in the city previous to Oct. 1, 1870, in not one instance was the cause of death detected by the attending physician. Two were returned as remittent fever, one as typhus, one as hepatitis, one as coma, and one as paralysis. This list is quite similar to one given in 1822 by Dr. Cuming, then City Inspector, which stated that three deaths by yellow fever had been reported as simply fever, three as bilious fever, two as remittent fever, one as inflammatory fever, one as liver complaint, one as inflammation of the brain, one as gastritis, one as inflammatory bilious fever, and one as insanity.

Last year the very competent surgeon at Governor's Island was equally at a loss, and although the disease had broken out on Aug. 13th, its proper character was first discovered by Dr. Nott six weeks subsequently. During that period it had occasioned twelve deaths upon the island. Such facts are very significant in teaching us how essential is a large experience to the recognition of this insidious disease, which assumes forms so similar to more familiar affections.

Altogether in 1870 there were brought to light twelve cases of the fever in this city, of which nine proved fatal. Taking into consideration the circumstances of its unsuspected existence upon Governor's Island for six weeks, and the unrestricted intercourse for that period between the city and the infected locality which was visited by hundreds of the patients' friends, I think we cannot escape the conclusion that many more cases must have occurred among such visitors, and that a number of them probably died without their disease having been recognized. I believe also that such facts justify the assumption that undetected cases, particularly among sailors and 'longshoremen, are much more frequent in the city than is generally supposed. Two sailors have recently died here of yellow fever, one at Bellevue and the other at the Fever Hospital. In each the diagnosis was somewhat equivocal, but was considered to have been confirmed by autopsy, which revealed in both cases coffee-colored fluid in the stomach and intestines, fatty liver, and acute desquamative nephritis.

Dr. Elisha Harris said that the cases which had been mentioned occur every year. The man who succumbed at Bellevue Hospital passed quarantine on the steamer *Cleopatra* without question, was on deck at the time, but on his arrival at the hospital his disease was pronounced yellow fever. On the return of the *Cleopatra* to this port, it was ascertained that other cases had occurred on board, and that this man had been ill several days, but was mustered on deck in order to pass the quarantine office.

Every year cases of this sort can pass into the city. In 1856, 51 cases were brought to this city.

Dr. J. C. Peters alluded to the case of Mr. Chandler White, who was the first to come down with the disease on Bay Ridge, L. I., in 1856, and believed the poison must have been conveyed from the ships, then at quarantine, by the strong south-west wind prevailing at the time, notwithstanding they were almost one mile distant.

He thought it was always an imported disease, and that it was communicated to others in some way, especially where filth abounds. The large number of ships anchored off Bay Ridge no doubt communicated the disease. He was also very confident that cholera is an imported disease. Both are imported and both are communicable, but could be kept out by a rigid quarantine, but more rigid than heretofore.

A map was exhibited by Dr. Harris, showing the position of the ship *Jane H. Glidden*, and stated that she was anchored very near the Bay Ridge shore while discharging her cargo, and that the disease was probably conveyed from her to Bay Ridge by the wind.

Dr. W. C. Roberts spoke as follows: The contagiousness, of yellow fever, that is, its communicability from person to person by means of living germinal matter, or a virus generated in the body of the sick man, communicated by him to the well, reproducing itself within his system and extending by zymosis in the surrounding atmosphere, which is infectio-contagion, although not yet wholly beyond dispute, is generally doubted; and although sustained by Hosack, Copland, Gregory, and Stevens, and not wholly denied by Louis, is certainly not generally believed in, and if it were so in any great degree, ought by this time to be established on a sufficiently stable basis. Yet, when we consider that cases have been adduced seeming to have been produced by contact with the excreta of the sick, as in cholera and typhoid fever arising in otherwise uninfected localities; when we consider that, with the exception of the truly malarial and non-contagious diseases, no other diseases fail to possess both an infectious and contagious property, it seems to me that we must hesitate before we refuse to assign to yellow fever mitigated, but sometimes contagious property—a possibility, at least, that there may be generated within the bodies of the sick a materies morbi capable of elimination and infection—a true, living, animal organic poison, limitedly such, if you will, and ascribable plausibly perhaps to the patient's clothing, etc., brought from infected localities, ships, etc., but still developed, in rare instances, in such a way as to make its contagiousness at least very probable.

It is indeed at all times difficult to settle the question of actual contagiousness with positive certainty, even in diseases confessedly such.

With the highest respect for Dr. Nott's opinion, and admitting that he has the weight of testimony on his side, I think that analogy and probability are against him, and must consider the question of the contagiousness of yellow fever as still unsettled. It may be strange to see Nature dispose of two elements of destruction—one miasmatic and infectious, the other contagious, and combine them into an infectio-contagion, but so she does in numerous instances; and this characteristic is generally possessed by diseases which are widely epidemic, migratory, and diffused. It is no more strange that yellow fever has not been brought here, where it never originates, since 1822, than that cholera has not been brought here since 1854; whilst the seeds of domiciliated diseases, which are constantly latent among us, germinate every year and produce fruit in greater or less abundance.

The Prince of Wales is just recovering from an attack of typhoid fever, contracted by infection in an unhealthy locality, in which two other persons also suffered. No one about his bed has yet suffered from contagious infection, and perhaps may not. But can any one doubt that in his dejecta and soiled clothing lurk the seeds of contagion, to which his washerwoman, perhaps, may alone fall the victim.

If yellow fever is alone diffused by vitiated air shut up in fomites, unmixed with personal exhalation or secretion, it is the one grave exception to the general rule. The very fact that yellow fever sweeps with irresistible force in great epidemics over a country, irrespective of topography and all sanitary regulations, is to my mind conclusive evidence that it is not always due to fomitic or aërial transportation, but possesses elements of intercorporeal reproduction and zymotic diffusion which alone could account for its spread, and must rank it on the list of qualifiedly contagious diseases.

I am of opinion, with Dr. A. N. Bell, of Brooklyn, that yellow fever is a living organic poison, as such possessing contagious properties; and like him, although I acknowledge the difficulty of showing clear and undoubted cases of direct contagion, am surprised at Dr. Nott's conclusions.

Dr. Nott, in answer to the request of the President as to the treatment of yellow fever, replied that there was no specific treatment. He then described the symptoms of the disease, and remarked that the great object is to preserve the strength by nourishment and alcoholic stimulants, and keep the patient in a recumbent position.

The collapse comes on during the fourth or fifth day, and if the strength of the patient can be preserved for forty-eight hours longer, recovery is probable. Bleeding is out of date; quinine has no specific action except to relieve muscular pain. Delirium occurs in about 1 in 40 or 50 cases, and cupping is beneficial in such cases.

Dr. Walser, in conclusion, made interesting remarks to prove the contagiousness of yellow fever.

The Academy adjourned.

Stated Meeting, January 4, 1872.

Dr. E. R. Peaslee, President, in the Chair.

Dr. Jean F. Chauveau was elected a Resident Fellow.

The result of the Annual Election for officers for the ensuing year was as follows:—

Vice-President—Dr. S. S. Purple; *Trustee*—Dr. Isaac E. Taylor; *Committee on Admissions*—Drs. Gouverneur M. Smith and E. H. Janes; *Committee on Medical Ethics*—Dr. John C. Peters; *Committee on Medical Education*—Dr. F. A. Burrall.

RESPIRATORY MURMURS.

Dr. James R. Leaming read an able paper on "Respiratory Murmurs," of which the following is an abstract:—

After carefully examining the opinions of different writers, as Laennec, M. Beau, of Paris; Dr. Sanderson, of Edinburgh; Skoda, of Vienna; Dr. Hyde Salter, Dr. Waters, of Liverpool; Dr. Cammann, late of this city; Dr. Gerhard, of Philadelphia; Drs. Walshe, Corrigan, and Stokes, Dr. Leaming said:—

It is evident that some consider the respiratory murmur as having a single seat and cause, while others recognize its composite character. Yet I am not aware that any one has ever attempted to analyze the murmur, and study its constituents separately, as well as together. They speak of the vesicular character, the pulmonary quality of the respiration, but they attempt no analysis. To show that this may be done, and ought to be done, in order to attain a higher grade of excellence in diagnosis, is the main object of this paper. A clear understanding of the whole matter will make it necessary, as preliminary, to look at the minute anatomy of the tissue of the lungs and of the bronchial system; secondly, the circulation of the lungs and of the bronchial system; and, thirdly, the characteristics and constitution of the residual air, its object and office.

The bronchial system may be and is frequently called the connective system, or the broncho-respiratory; and the pulmonary is called the true respiratory system. They differ in almost every respect. The office of the broncho-respiratory is to convey air into the true respiratory system, while the true respiratory system is where the great function of vitalizing the blood is perfected. The bronchial system is characterized by cartilage, in its fibrous sheath, etc.

The bronchial arteries have been called the nutritive arteries by anatomists, but I am not aware that they have ever dwelt upon the fact that the venæ comites do not attend the arteries into the pulmonary structure, and consequently this gives them a peculiar character. The bronchial veins return all the blood of the bronchial arteries—the nutritive arteries have no veins. Their blood is re-aerated where they do their work, and finds its way into the venous radicles of the pulmonary vein as arterial blood. This anomaly in the circulation is of great interest in explaining physiological causes and pathological effects. In pneumonia, it is this artery, accompanied with its plexes of ganglia of the organic nerve, lymphatics, etc., that preserves the life of the part and governs the whole process of resolution. We can all remember the anxiety of practitioners in the past to prevent abscess and gangrene of the lung after inflammation. But time and study of the natural history of the disease has proved to us that gangrene and abscess are rare accidents, even when no treatment at all is had. This peculiar vascular arrangement gives us an early knowledge, in many cases, of commencing phthisis. Occupation of the air-sacs by tubercle interferes with the circulation of the nutrient artery, and blood is thrown back upon the bronchial artery, resulting in bronchonagia—a conservative act, for, like the application of leeches, it sets the absorbents actively at work to remove the cause. In this way cases of early phthisis are self-cured, or, at all events, ameliorated, and the physician is guided in his treatment This singular fact in the circulation was discovered by the late Dr. Cammann, in making his experiments to prove the non-anastomosis of the arteries of the lung. This was shortly after 1840, and before any experiments had been made in Europe in regard to this circulation. Since then, several observers have come to nearly the same conclusion. The view I take is supported by anatomical fact, a basis on which all physiological theories should be founded.

I remember that Dr. Cammann could not reconcile the incongruity of the apparent fact, that venous blood passed directly into the aerated blood of the pulmonary vein, and then to the left heart. The fact has been overlooked, that the blood from the nutrient artery passes through capillaries in the true respiratory system, on its way to the radicles of the pulmonary vein, and, of course, is re-aerated.

I believe I am warranted in holding that there is a complete difference in the blood-vessels of the connective and of the pulmonary system. The nutrient arteries of the bronchial system have their venæ comites; the nutrient arteries of the true respiratory system have no accompanying veins, but pass their blood re-aerated directly into the pulmonary vein, prepared for systemic circulation. The nutrient artery is no exception to the rule of complete difference in the two systems, for in its office it belongs wholly to the true respiratory. The vessels of the bronchial system are the bronchial arteries and veins: the vessels of the true respiratory are the pulmonary artery and vein, and the nutrient artery of the lungs. Where the bronchial system ends the pulmonary begins, and the division is sufficiently marked—it is where cartilage ceases and alveoli commence.

Following a minute description of the true respiratory system, the speaker stated that physiologists describe residual air as filling the respiratory system as high up as the third or fourth divisions of the bronchiæ. It not only fills the true respiratory system, but it distends it. The elements of the distending force are atmospheric pressure, muscular contraction, rarefaction, the laws of diffusion of gases, and that of affinitive attraction between oxygen and venous blood. The residual air occupies its position with such persistence as to be with difficulty dislodged after death, even with much pressure. It keeps its place with vastly greater tenacity during life, when each element of force is in active operation.

During inspiration the contraction of the diaphragm increases the capacity of the chest; at the same time the epiglottis is raised, and the weight of the atmosphere operates actively in dilating the lungs. Rarefaction of the newly inspired air takes place upon

inspiration, owing to its immediate and intimate admixture with the residual air, and this is the third element of dilating force. The residual air is estimated to be 170 cubic inches, and the inspired air at 20. At each inspiration, therefore, the residual air will be increased about one-tenth part in dilating power, plus the rarefaction of the inspired air. But the peculiar elements of this expanding force are the laws of the diffusion of gases, and that of the affinitive attraction between the unaerated blood-globules in the capillaries of the rete mirabile of the alveoli and the oxygen which is equally distributed throughout the residual air. Chemistry demonstrates that gases differently constituted in certain relations instantly intermix when brought together. The inspired air and the residual air present these differences. Air entering the connective system moves in a body through the bronchial tubes till it meets the residual air, when the law of the diffusion of gases operating, immediate admixture takes place. The residual air is instantly renewed with oxygen, in accordance with this law. The inspired atmospheric air moves through the connective system as far as the fourth division of the bronchiæ, with no other resistance than the friction of the tubes. When it meets the residual air it is immediately consumed, as it were, and does not accumulate, causing resistance. On this account the inspired air moves with increasing velocity, producing air and tube friction murmur. Tidal air in health is only heard in inspiration. Velocity of the moving air in the tube is the cause of murmur. Any one may demonstrate this fact by breathing through a tube gently, when there will be no murmur; but if the velocity of the moving air is increased, the sound will be increased in sonority and raised in pitch just in accordance with the rate of motion. In health, in unconscious breathing, expiration is not heard, and we know by experience that when it is heard in unconscious breathing, there is disease; it may be phthisis, or it may be emphysema. Other conditions must determine which. A murmur may be produced at will by hurrying the respiration. It is heard in systemic diseases like cholera, or in diseases of particular organs, as in cardiac apnœa, or Bright's small kidney. The cause of murmur in air moving in a tube, no matter what are the other conditions, or the disease, is the *velocity* increasing the air and tube friction.

The author narrated Professor John W. Draper's convincing explanation of one of the efficient causes of the circulation, based on accurate experimentation of affinitive attraction in the systemic capillaries. The same power operates in the pulmonic circulation, but with this important addition, that the affinitive attraction is not alone in the pulmonic tissues and the blood, but principally in the venous blood and the oxygen of the residual air. The intricate mechanism of the respiratory act was explained.

These facts in minute anatomy and physiology, and they hardly admit of any dispute, prove that the residual air as a body has no more motion than has the bottom of the deep sea. No change can occur except molecular, and none other is necessary. The law of diffusion of gases assures the comparative purity of the residual air, as well as its constant and guarded impurity, which is so necessary for the accomplishment of the vital act. The circulation would not go on if each blood globule should immediately come in contact with pure air, for then it would lose its impelling force, and, all the globules alike losing their attraction, stasis would be the consequence. Instead of this, both in the blood and the residual air, each globule and each air particle moves in perfect order, never being in each other's way. This shows how the individual may live in bad air for a time, resisting its evil tendencies, and even of poisonous gases. It shows also why medical inhalations fail in their object. Medicated vapors have little or no admission into the residual air. Even oxygen gas, which is sometimes serviceable, can only supply atmospherical deficiencies. It can neither do the harm nor the good that has been predicated for it. An animal may even live for a time in pure oxygen gas, the active interchange taking place between the gas and the blood restoring the necessary grade of impurity in the residual air.

The prevailing theories of air and tube friction murmurs, and the mechanism of the crepitant râle, were then discussed. All theories, whether of vesicular murmur or crepitant râle, which ignore the presence of the residual air are of necessity incompetent. The fact that residual air has none but molecular motion, may be demonstrated by a distensible bag, as of india-rubber. If it be forcibly filled with air, there will be air and tube friction murmur at the mouth only, where the air moves in a body with velocity. The body of air in the bag will be increased by particles of air sliding in among each other, and without sound. But there will be resisting vibratory sound in the walls of the tense dilating bag, a susurrus, different however from that of the contracting true respiratory system in this, that it is only heard during dilatation, while the other is continuous, owing to active muscular contraction. Dr. Hyde Salter says, after speaking of the occupancy of the true respiratory system by residual air, and that about twenty cubic inches of atmospheric air are added at each inspiration, "each air-cell is therefore a tenth larger at inspiration than expiration." Now it is inconceivable that this slight variation in the capacity of these shallow open cavities should be attended with any sound. I cannot conceive it possible. For be it remembered that the air-cells are not nearly closed cavities, communicating by constricted orifices with the general cavity of the lobular, but wide-mouthed and patulous like a tea-cup, and in inspiration the air is not pumped out of and into these cells, but, as they undergo this slight change of volume, a small part of their contents passes just without them; and then again, on recovery of their capacity, from without just within them, if one can speak of within and without in reference to such slight interchange of situation.

In closing, the author remarked: In this paper I have endeavored to show that the bronchial respiratory system is entirely different from the true respiratory system in anatomy, physiology, object, and use, and that the physical signs of pathological change are equally distinct and different; that the residual air, occupying as it does the true respiratory system, with force precludes the idea of currents of air within the lungs, and consequently the accepted theories of the vesicular or respiratory murmurs and of the formation of crepitant râle are necessarily incompetent. If my points are well taken, and the proof convincing, the profession will eventually sustain the truth, and much that has been received as settled literature will be swept away as rubbish, to give room for truer and better grounds of faith. In physical diagnosis the composite character of the respiratory murmur must be made evident analytically as well as synthetically.

The reasons for introducing a new terminology are, that broncho-respiratory and true respiratory are descriptive, and indicate the seat of the murmurs. The term vesicular murmur was applied by Andral, supposing that it described the minute anatomy of the seat of the murmur. Later investigations show that the term is misapplied; for there are no structures that

may properly be called vesicles in the lungs. Again, the terms vesicular and respiratory have been applied indiscriminately, and their present use would lead to confusion and misapprehension. In order practically to study these murmurs it will best be done by selecting a healthy person about twenty-five years of age, with perfectly developed chest, and with muscles not hardened by manual labor.

Respiratory Murmurs.—Placing the ear lightly yet firmly to the chest, allowing the head to rise and fall with the respiration, listen to the breath-sounds. The tidal air murmur will first catch the ear, as modified by the true respiratory murmur, and is like the sighing of the trees over our heads in the forest when the boughs are gently stirred by the breeze.

The character and quality of the respiratory murmur depend upon the absence or excess of one or other of the composing elements. If the true respiratory murmur be maximum in fulness, the tidal air sound will be short, only heard in inspiration, and will be of the soft breezy character described as gently sighing. While, if the broncho-respiratory be in excess, the tidal air sound will be raised in pitch, harsh, and will be heard both in inspiration and expiration, and is a sign of disease, as the other is of health.

The broncho-respiratory murmur may be studied by forcing the breathing, when it will be heard in both inspiration and expiration; and its harshness, loudness, and pitch will depend upon the force given to the respiration. This murmur may be heard in its perfection in the chest of a child, before the true respiratory murmur has been developed.

True Respiratory Murmur.—The ear accustomed to auscultation, after a few moments of concentration of attention upon the respiratory murmur, will recognize its dual composition. If the chest be perfect in condition, the tidal air sound will be heard in inspiration only—soft and short, like breathing gently through the closed teeth; while the true respiratory murmur will be continuous, increasing in fulness in inspiration, and diminishing in expiration. It is of a low pitch, and is like the roaring of the sea at a distance, the waves breaking on an even shore of sand; or, better still, like the sound made by bees in cold weather, when the hive is tapped with the finger. It is like the innumerable vibrations of the wings of bees, increasing to maximum in inspiration, like the coming waves on the sea-shore, and decreasing in expiration as they recede. If the breath be held, this murmur may be heard without admixture, for there can then be no bronchial respiratory murmur. The sound is purely that of the susurrus of the delicate muscular fibres of the true respiratory system, contracting and relaxing over the dilating and resisting residual air. If the breath be held after a full inspiration, the murmur will be at its maximum; if it be held after expiration, it will be at its minimum fulness. It cannot be exaggerated, as has been said of so-called respiratory or vesicular murmur. If the true respiratory system be unduly dilated, it loses its power to contract on the residual air and the murmur wholly ceases. *This* is emphysema, and is proof of the muscular origin of the sound, which may return again after rest. This murmur only commences to be developed in the child at eight years of age; becomes recognizable at twelve, but is only fully developed at maturity.

A beginner in auscultation may recognize true respiratory murmur in a good subject with ease. But when the chest has lost its excellent quality as an acoustic chamber, by physical changes resulting from inflammation, or when, from disease of the lung itself, the natural respiratory murmur has been altered or lost, or when the chest in its natural conditions is covered by thick and hardened muscles, the trained expert-ear only can arrive at diagnostic truth.

Many love and enjoy music, and may assist in producing it, but the trained expert alone can lead an orchestra, and harmonize each instrument into a body of perfect song. These facts, instead of being a matter of discouragement, should induce beginners to pursue auscultation with untiring assiduity, knowing that the end will crown them as masters in physical diagnosis.

The ability to recognize true respiratory murmur under any conditions, to analyze its quality, and measure its power, gives its possessor the means of knowing even the approach of that most insidious disease, phthisis, and suggests the method of prevention.

The true respiratory system, air-sacs, alveoli, nutrient artery, ganglia of the organic nervous system, with absorbents, etc., all require active use for the prevention of disease. Phthisis does not begin in the lower part of the lungs, which are constantly and actively in motion. If we insure the same kind of exercise in the upper part, we prevent and even arrest incipient disease.

For more than ten years respiratory murmurs have occupied my diligent attention. The views in this paper are not hastily put forward. Some of them are new, and may receive the harsh criticism innovations ever provoke. I am not insensible to the opinions of my professional brethren. I desire their approval. Many on whose judgment I rely believe in true respiratory murmur as well as myself. But, wishing above all things for the establishment of truth, I submit the whole subject to this learned Academy, and through it to the profession.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, U. S. Army, from January 5, 1872, to January 18, 1872, inclusive.

Peters, DeWitt C., Surgeon.—By S. O. 13, War Department, A. G. O., Jan. 16, 1872, to report in person to the Commanding General, Department of the South, for assignment to duty.

Hoff, A. H., Assistant Surgeon.—By S. O. 213, Department of California, Dec. 11, 1871, on being relieved, to comply with S. O. 431, C. S., from A. G. O.

Azpell, T. F., Assistant Surgeon.—By S. O. 221, Department of California, Dec. 22, 1871, assigned to duty at Alcatraz Island, Cal.

Heizmann, Chas. L., Assistant Surgeon.—By S. O. 3, Military Division of the Missouri, Jan. 4, 1872, leave of absence extended thirty days.

Yeomans, A. A., Assistant Surgeon.—By S. O. 9, War Department, A. G. O., Jan. 11, 1872, granted leave of absence for six months on Surgeon's Certificate of Disability.

Wilson, Wm. J., Assistant Surgeon.—By S. O. 4, District of New Mexico, Jan. 8, 1872, to accompany Troop H, 8th Cavalry, from Fort Union to Fort Craig, N. M., and await at the latter post further orders.

Fitzgerald, J. A., Assistant Surgeon.—By S. O. 5, Department of the Mo., Jan. 6, 1872, when relieved at Fort Harker, Kan., by Surgeon B. E. Fryar, U. S. A., to proceed to Fort Leavenworth, Kan., and report to the Commanding Officer for assignment to duty.

Medical Items and News.

Small-Pox still prevails in this city and vicinity, and since our last report the number of victims has much increased, averaging over 80 for each of the past two weeks. Philadelphia reports the enormous average of 200 deaths weekly. The disease threatens to become an epidemic in stricken Chicago, but the Health Board of that city have taken the matter in hand, and is confident of its ability to stay its progress. The people in all places take very kindly to vaccination, which is an encouraging omen. Our own Health Department, with its corps of efficient inspectors, has done wonders in this way.

New York Pathological Society.—The following officers have been elected for 1872: President, Dr. A. L. Loomis; Vice President, Dr. Erskine Mason; Secretary, Dr. Geo. F. Shrady; Treasurer, Dr. John H. Hinton; Editor of *Transactions*, Dr. John C. Peters.

Spontaneous Generation.—Prof. John C. Dalton delivered two interesting lectures, Jan. 12, 13, respectively, at the College of Physicians and Surgeons. He gave an exceedingly full historical account of the experiments of Shultze, Spallanzanni, Pouchet, Pasteur and Jeffries Wyman. Prof. Dalton is a non-believer in the theory of spontaneous generation, as must every one be who examines all the facts resulting from the multitudinous investigations and experiments of the physiologists and chemists who have devoted themselves to this interesting study. As the question now stands, the conviction seems irresistible that infusoria are not produced unless air containing the germs is brought in contact with a substance suitable for their development.

Dr. Alex. N. Gunn.—At a Stated Meeting of the New York Academy of Medicine, held January 18, 1872, the following preamble and resolutions were unanimously adopted:

Whereas, Divine Providence has called the members of this Academy of Medicine, and a very large community of professional and personal friends, to mourn the death of Dr. Alexander N. Gunn, an esteemed member of the Academy—

Resolved, That the New York Academy of Medicine recognized in Dr. A. N. Gunn, during his lifetime, an enlightened, conscientious, and most devoted physician, whose faithfulness to his patients and the families under his care, and to every duty of his profession, rendered his life an example worthy of imitation.

Resolved, That having in private life, and in the trying responsibilities of Health Officer of the Port of New York, during a protracted period of service, so discharged his duties as to merit and receive perfect confidence in his spotless purity of character, and in his integrity in all things, his name will be held in lasting honor among his medical brethren and the citizens with whom he associated.

Resolved, That a copy of these Resolutions be transmitted to the widow and family of the deceased, and that this Academy hereby tenders to them its sincere condolence and sympathy, and the expression of that true and universal regard and cordial friendship in which Dr. Gunn was held by its members.

Resolved, That copies of these resolutions be sent to the medical and daily journals in this city.

E. R. Peaslee, M.D., *President*.
W. T. White, M.D., *Secretary*.

Honors Conferred on British Surgeons.—Sir William Fergusson and Sir James Paget have been elected honorary members of the Royal Society of Natural and Medical Sciences in Brussels.

French Chemical Prizes.—The following prizes for 1872 are offered by the Society for the Encouragement of Industry in Paris:—

Economical preparation of oxygen	2,000 francs.
Economical preparation of ozone	3,000 "
Combination of the nitrogen of the air to produce cyanides	2,000 "
Synthesis of a useful organic product, quinine, alizarine, sugar, etc.	4,000 "
Permanent disinfectant for water-closets	6,000 "

A New Western Medical Journal.—A new monthly medical journal, published at Evansville, Indiana, has come to hand. It is edited and published by Drs. H. M. Harvey, H. A. Lewis, and W. M. Newell, and is called "*The Western Retrospect of Medicine and Surgery.*"

Errata.—In the discussion on "Yellow Fever," in Record of January 15, 1871, page 519, line 33 from the bottom, the word "timbers" should read *lumbers*. Page 521, line 16 from the top, "bound" should read *borne*; on same page, line 18 from the top, "timbers" should read *limbers*.

The Importation of Opium.—The money value of opium imported through the Custom House of New York City, in the year 1871, was $1,299,091.

Small-Pox in England.—In the year 1870, 1,259 deaths were registered in the seventeen prominent cities and towns in England. No less than 13,174 persons fell victims to the disease, in the same towns, in the year 1871. The highest small-pox mortality in London, during the 31 years 1840–1870, was in 1863, when 2,012 fatal cases were reported. Last year 7,876 fatal cases occurred in London alone; of which 2,400 occurred in the first, 3,241 in the second, 1,255 in the third, and 980 in the fourth quarters. The proportion of fatal cases to the population of the seventeen towns was 18 per 10,000; the ratio in London was 24, in Norwich 30, in Liverpool 39, in Wolverhampton 41, in Newcastle-on-Tyne 54, and in Sunderland 86.

The Amussat Prize.—Dr. Berenger-Feraud, for his treatise on "Ununited Fractures and False Joints," has been awarded the Amussat Prize by the Paris Academy of Medicine.

The Sufferers from the Wisconsin Fire.—Dr. J. H. Thompson, of Milwaukie, Wisconsin, Chairman of Relief Committee of that place, has written Dr. F. H. Hamilton, Chairman of Chicago Relief Committee of this city, some particulars concerning the fire in Peshtigo and vicinity. Dr. J. F. Kelsey, of Peshtigo, lost all his property, valued at $4,000. He passed the night in the river, and is now quite sick from the exposure; has a wife and one child. Dr. J. J. Sherman, of Minnekonne, lost $7,000; saved a part of his clothing and part of his library. Had $400 insurance. Dr. J. H. Antome, of Ahnesse, lost everything. The New York Committee have forwarded $250.

Sea-Water as a Tonic.—At the meeting of the *Académie des Sciences* of Nov. 27th, the Secretary stated the remarkable fact that excellent bread can be made with sea-water instead of ordinary spring-water, and that this bread appeared to constitute an excellent tonic. Soup or broth, on the contrary, made with sea-water proved totally uneatable.

M. Boussingault was of the opinion that during the process of baking, the chloride of magnesium is raised to a temperature sufficiently high to effect its destruction, which does not occur at the temperature needed for the making of soup.

Death of Paul Dubois.—The funeral of this noted obstetrician took place on the 4th ultimo, at the Church of St. Sulpice, in Paris, his death having occurred Nov. 29th. The deceased was Honorary Dean of the Faculty of Medicine, Commander of the Legion of Honor, Member of the Academy of Medicine, etc., and had attained the age of 76 years.

Waxed Paper as a Dressing is recommended by a correspondent of the *Deutsche Klinik* (Nov. 18), who says that at St. Hedwig's Hospital it has been found of great service. It is especially indicated as a covering for wet compresses and poultices, whose moisture it is desirable to retain. It is easily adapted to all parts of the body, and is very light. Its durability, considering its light texture, is considerable, and it is much cheaper than gutta-percha, rubber, or oiled silk.

A Pelvis Contracted and Dilated at Pleasure.—Dr. Winkler (of Jena), describes a pelvis of this character in the person of a girl, 16 years of age, who applied to him to know if she might properly be married. At the age of one year she had suffered a fracture of the pelvis. To all appearance she was well formed, could carry considerable weight, and work with facility. The dimensions of the pelvis were very nearly normal, but it was ascertained that the horizontal and ascending rami of the pubis of the right side had not ossified, but were constituted simply of fibrous tissue, and could, with the fingers, be pushed in and out. When the thighs were stretched apart, this fibrous tissue was made tense, and became flaccid when the thighs were brought together. —*Archiv für Gynäkol*, and *Lyon Médicale*.

The Jerusalem German Hospital.—During the last two years the German deaconesses, in their hospital at Jerusalem, have cared for 1,414 patients, belonging to nine religious sects. Out of this large number only 46 have died.

The Hop Pillow.—During the illness of the Prince of Wales, when all other remedies failed to produce a soporific effect, the old-fashioned hop pillow was placed under his head and quiet sleep followed.

The American Mother Growing Less Prolific.—Dr. Toner of Washington, D. C., the statistician, in his diagram shows that what is held up as the peculiar shame of Massachusetts is equally true of all her sister States. It is shown that only one-half as many children are now born to each thousand women as in 1800, and that there has been a regular decrease from one decade of years to another.

The N. Y. Orthopædic Dispensary.—Dr. T. M. L. Chrystie, surgeon, writes, that since this institution was organized in 1866, 8,810 visits have been made by patients at the Dispensary rooms, and 1,615 out-door visits have been made by the assistant surgeons. There are now under treatment 325 patients, mostly children, of whom 178 are afflicted with caries of the spine, and 93 have hip-joint disease. A new building is required, which shall contain every requisite for the mechanical and surgical treatment which this class of cases requires. Contributions may be forwarded either to James Brown, Esq., President, No. 59 Wall st., or to Theodore Roosevelt, Esq., Treasurer, No. 94 Maiden lane.

A Large Brain.—The brain of the late James Fisk, Jr., weighed fifty-eight ounces.

Evolution.—The *American Journal of Insanity* for October, 1871, opens with an extended and valuable paper on "Theories of Evolution," which deserves an extended circulation. It is a review of "The Origin of Species," "The Descent of Man," etc., by Charles Darwin, M.A., F.R.S.; "On the Genesis of Species," by St. George Mivart, F.R.S., and "Lay Sermons, Addresses and Reviews," by Thomas Henry Huxley, LL.D., F.R.S.

The Coast Districts as a Winter Resort for Invalids.—Dr. F. Peyre Porcher, Charleston, S. C. (Transactions South Carolina Medical Association), says that the whole districts of South Carolina and Georgia, lying along the sea-coasts, and within fifty to seventy miles of it, possesses a winter climate of extraordinary mildness, which renders them highly beneficial to those who suffer from affections of the chest, lungs, or heart. From his own observation, the climate of this section resembles very closely, if it be not superior to, that of either Italy or the south of France. With many charms of scenery derived from the mingled beauty of land and water, or from the rich and luxuriant vegetation of swamps and primitive forests, if it does not possess all the lovely characteristics of that surrounding the famed Bay of Naples; the climate itself is scarcely surpassed by that of Nice, Pansillippo, Sorentum, Baiæ and their environs.

"The Inventor and Revealer of Anæsthetic Inhalation."—The committee of citizens of Boston chosen to raise a Morton Testimonial Fund, claim that no one, either in or out of the profession, up to the final experiment with ether at the Massachusetts General Hospital in 1846, by William T. G. Morton, had ever dared, in public or private, to saturate a man with ether, with the intention of producing insensibility to pain, and still less with the idea of urging a surgeon to perform a long and painful operation upon the unconscious patient. "The Historical Memoranda" states that "more than a year after the first operations were performed, the late Sir James Y. Simpson sent his pamphlet on chloroform to Dr. Morton, and after speaking of ether, and of its use as an anæsthetic," he adds, —"Of course, the great thought is that of producing insensibility to pain; and for that the world is, I think, indebted to you."

The Committee to obtain a proper testimonial for the family of the late Dr. Wm. T. G. Morton, is composed of the following gentleman: Drs. Chas. G. Putnam, Henry I. Bowditch, Geo. Hayward, R. M. Hodges, Luther Parks, Sam'l Kneeland, John C. Warren, and Francis Minot, of Boston.

The names of the following physicians of New York and Philadelphia have been added, with the consent of the various parties: Drs. E. R. Peaslee and Willard Parker, of New York, and Drs. S. D. Gross, J. M. Da Costa, and S. Weir Mitchell, of Philadelphia.

The Oldest Medical Work in Existence.—An Egyptian papyrus, written in the days of Cheops, the monarch of the Fourth Dynasty, has recently been presented to the British Museum by the Royal Institution. It is 7 feet 6 inches long by 7 inches wide. Its contents are a series of recipes or modes of cure for different maladies, unaccompanied by any diagnosis or account of the disease itself. Among the drugs mentioned for some maladies are wax, fat, and incense. One remedy is for a hemorrhage from the head and other parts of the body, shavings or twigs of acacia, grains of a substance called *kaspr*, to be burnt; also milk, branches of olive, the hair of a cat, and honey. Many of the recipes date from an early period, as that of Amenophis III. of the eighteenth century.—*Compendium of Medical Science*.

The Introduction of Syphilis.—According to Prof. V. Hasner, syphilis first appeared in Prague in 1499. In 1500, a small hospital was built for syphilitic patients, probably one of the first hospitals exclusively for syphilis on record.

Medical Society of the State of New York.

SIXTY-SIXTH ANNIVERSARY.

First Day—Morning Session.

The Society met at 11 A.M. on Tuesday, February 6th, 1872, in the room of the Common Council, Albany; and the meeting being called to order by the President, Dr. William C. Wey, of Elmira, the exercises commenced with a prayer by the Rev. Dr. Snively, which was followed by the Inaugural Address.

THE PRESIDENT'S INAUGURAL ADDRESS.

He spoke of the immediate and remote effects of medical fellowship as illustrated by the history of this Society; especially with reference to its influence on other societies in this State. To such an extent was he persuaded of the necessity of a more enlarged and specific knowledge and understanding of professional ethics, that he would gladly see the whole subject made a branch of medical education in the schools.

The tardy publication of its Transactions called for some action on the part of the Society; under the pressure of other public business, the evil is yearly growing worse; the Transactions for 1871 not yet being forthcoming for many weeks. But for last year's modification of the rules, which prevented an author from publishing his paper in magazines or pamphlet form, many men would be deterred from submitting to the Society, papers containing new and valuable observations. In former years the small membership of the Society, and the difficulties of travel, rendered it quite necessary that the State should undertake the publication of the Transactions, which it has done since 1849; but in view of the now largely increased membership, and the fact of the delay above referred to, the time had arrived for a change, and the President suggested two or three methods which would, he thought, be improvements upon the present one:—First. Asking of the legislature the appropriation of a sufficient sum each year to cover the expense of publication, which would be done under the auspices of the Publishing Committee of the Society. Second. The securing of a grant from the Legislature of a sum, the interest of which would suffice for this object; the publication being in this case, like the preceding, entirely independent of State control. The third plan would consist in the raising of money for this purpose, and for meeting the annual expenses of the Society, by assessing its members, and the County and other organizations, including the medical colleges actually represented.

A letter had been addressed to the Surgeon-General of the United States, inviting him to designate one or more members of the medical staff on duty in the State to be present during the meeting of the Society; which had been accepted, providing the condition of the service would permit it at the time.

The President also recommended that a committee be appointed to petition the Commissioners of the Capitol to arrange in their plans for a room for the annual meetings of the Society, and to serve as a place of preservation for its papers, volumes, etc.

He next referred to the spirit, which had lately been manifested, to cut short the process of investigation of preferred charges against a member, in a well-qualified medical society, by an appeal to the civil courts, and said that a course so subversive of morals and justice should be met by prompt expulsion of the offender, and a cessation of social and professional relations with him, if the latter action of a society should be prevented by further legal hindrance.

He pressed upon the Society the necessity for urging the Legislature to pass a law to protect physicians, wrongfully prosecuted for malpractice, from loss on account of the irresponsible character of the plaintiff.

He referred with particular pleasure to the condition of medical literature in this State, both in the way of journals and books, the reputation of the State in this regard being already established both at home and abroad.

In closing, he alluded to the only sad feature of the year, the death of four prominent members, viz.: Drs. Barent P. Staats, of Albany; Andrew Van Dyck, of Oswego; Erastus L. Hart, of Elmira; and Henry D. Bulkley, of New York.

MISCELLANEOUS BUSINESS.

The President announced as the *Committee on Business*, Drs. Didama, Bozeman, and Murphy.

Dr. Newman moved that the address of the President be referred to a committee who shall draft appropriate resolutions. Carried.

The *Committee on Credentials* was then announced by the President, as consisting of Drs. Hyde, Jacobs, and Burton.

On motion of the Secretary, the Society then adjourned for five minutes to arrange business.

Dr. Ellsworth Eliot then presented, in behalf of Dr. Lewis A. Sayre, the following draft of a bill to be presented to the Legislature:

AN ACT FOR THE PROTECTION OF PHYSICIANS AND SURGEONS IN CASES OF ALLEGED MALPRACTICE.

Section 1. Be it enacted, that in all suits that may be brought against any physician or surgeon for alleged damages in any case arising from any alleged malpractice on the part of any physician or surgeon, that the plaintiff shall, before such suit shall be commenced, give a bond in at least double the amount of the damages claimed in such suit.

Sec. 2. Such bond shall be signed and received by two good and sufficient sureties, who shall be freeholders, to be duly approved by one of the judges of the court in which such suit shall be commenced, conditioned that if the plaintiff shall not maintain such suit, or shall not recover against the defendant, that such sureties shall well and truly pay to the defendant all costs and damages that the defendant may sustain by reason of such suit, and all legitimate expenses incurred in defending the same.

Sec. 3. If, during the pendency of such suit, the said sureties, or either of them, shall become insolvent or irresponsible, the plaintiff shall immediately substitute other good and sufficient sureties, to be approved in like manner, as hereinbefore provided for.

Sec. 4. That, in case the plaintiff shall not comply with the provisions of this act, no such suit shall be maintained against any physician or surgeon for any alleged damage, in any case of alleged malpractice; and that any such suit shall be dismissed upon motion of any defendant, at any time after any process may have been served upon the defendant in any such suit; and such defendant shall be entitled to, and recover against any such plaintiff, such costs and damages as the court may award, upon such motion to dismiss any such suit.

Sec. 5. Whenever any plaintiff shall not maintain the suit, nor recover damages as hereinbefore provided, the defendant shall immediately commence a suit upon the bond hereinbefore provided to be given; and such suit shall be a lien upon the property specified in such

bond, upon a notice of *lis pendens* being filed in the court in which such suit shall be commenced.

Sec. 6. This act shall take effect immediately.

Dr. White, of Buffalo, offered the following:—

Resolved, That the bill submitted by Dr. Sayre meets the approval of the society.

Adopted.

Drs. White and Corliss then made remarks endorsing the bill.

The President then announced as a *Committee on Arrangements*, Drs. Bailey, Quackenbush, and Bottom.

On motion of Dr. Kendall, a committee of three was appointed to wait on members of the Legislature who are physicians, and certain others, and invite them to be present at the meetings of the Society, and to take part in the discussion.

Dr. Henry Jewett then read an account of a case of Tubal Pregnancy, with remarks, etc.

Dr. Rogers observed that the doctor had omitted to mention, among the signs of this condition, a bloody discharge at various periods, accompanied with shreds of decidua.

TRANSITORY MANIA.

Dr. George Cook, of Canandaigua, then read a paper upon Transitory Mania, referring to the case of Aratus F. Pierce, of Lockport, Niagara Co., who killed Wm. Bullock for the seduction of his (Pierce's) sister, and denying that there was any evidence adduced in this case which could prove even the momentary insanity of Pierce; his acquittal having been brought about solely by demonstration of public sympathy, and not on the grounds of justice.

Dr. Quackenbush then introduced to the Society Drs. Foster and Small, delegates from the Maine Medical Society. They were welcomed by the President, and invited to take part in the discussions.

A communication was read from Dr. N. S. Davis, of Chicago, accompanied by a report of a Committee of the American Medical Association, asking attention to the necessity for more thorough preliminary education for those entering on the study of medicine, and, moreover, the restriction of the duties of medical colleges to teaching purely, taking from them the right to grant diplomas.

Referred to committee.

THE OBJECTS OF MEDICAL LEGISLATION.

Dr. Stephen Rogers then read a somewhat lengthy paper on The Objects of Medical Legislation. After first showing the ignorance of even the better classes of the community with regard to medical matters, their disposition to patronize quackery, and the hopelessness of any attempts to improve the condition of things by education of the people, he assumed that in this, as a matter concerning public health and welfare, it was the duty of legislative bodies to interfere, and protect the public from the depredations of unqualified practitioners; that the medical laws of the present day are totally inadequate for this purpose; and that the duty devolves upon the medical profession to do what is in their power, to improve the present very lamentable condition of affairs. He claimed that this was to be done only by sinking disputes originating in therapeutical details and differences—the rock upon which their good professions have been wrecked for the past thirty or forty years—instead of which must be established the standard of adequate instruction, if we desire to secure the community from the imposition of quacks. "Upon the assumption that a properly educated physician will, in some form or other, do what appears to him appropriate in cases of disease and in wounds, let us insist upon the education, and leave the collateral questions of therapeutical belief and faith to the conscience of the individual. There is serious reason for the opinion that the acknowledged failure of legislation, and of the efforts of County, State, and National Associations to elevate and to place legitimate medicine in its true light before the community, is attributable to two circumstances, viz., their having been directed to the protection of the profession itself, and that these efforts have uniformly ignored the right of the so-called new schools to any voice in the matter." He called attention to the utter inability of medical schools or County or other Societies, under the present laws, to control the practice of medicine, and referred to the deterioration in the value of a diploma outside of medical societies. "Let it," he said, "be first regarded as an offence against public safety to attempt the practice of the art of medicine without adequate preparation, and there will soon follow little difficulty in obtaining laws needed for the punishment of the offender." "There is little doubt that the degree of estimation in which our profession is now held will diminish from year to year, so long as we stupidly abandon the community to the mercies of ignorant and criminal charlatans."

The Society then adjourned until 2.30 P.M.

First Day—Afternoon Session.

The Society having met pursuant to adjournment, the President announced the Nominating Committee as follows:

1st	District,	Dr. D. B. St. John Roosa.
2d	"	Dr. C. C. Corel.
3d	"	Dr. S. O. Vanderpoel.
4th	"	Dr. B. F. Sherman.
5th	"	Dr. John P. Gray.
6th	"	Dr. Wm. Fitch.
7th	"	Dr. Harvey Jewett.
8th	"	Dr. Julius F. Miner.

CHRONIC CYSTITIS IN THE FEMALE.

Dr. T. Addis Emmet then read a paper on Chronic Cystitis in the Female, and mode of treatment. In 1858 he operated for calculus, leaving the wound open by the advice of Dr. Sims, with the object of aiding the cure of the diseased bladder. He spoke further of the fact that Dr. Parker had followed this course in the male, in certain affections of the bladder, as had also Drs. Eve and Bozeman in the female. The disease is frequently dependent upon too early closure of a vesico-vaginal fistula following delivery. It is also dependent upon calculus. Of fourteen cases of this nature on which he had operated, nearly all had been previously operated on for vesico-vaginal fistula. Among the principal causes producing this affection, the habit of long retaining the urine was mentioned. The main reliance in the way of local treatment, in ordinary cases, must be in frequently washing out the bladder with warm water, using anodynes, and occasionally dilute acids, if requisite. When this plan of treatment cannot be pursued, and the case does not improve, a fistulous opening should be made from the vagina into the bladder, before the kidneys become involved—a procedure which, in uncomplicated cases, is free from risk. For the mode of operating, the doctor referred to his work on Vesico-Vaginal Fistula, remarking that great care needs to be taken that the ureters are not divided, an opening but little larger than the ureter being *theoretically* sufficient. A small piece is sometimes cut out, and the doctor has used a hollow glass stud, in some cases, in order to keep the wound open.

Dr. Bozeman followed with some remarks, chiefly relating to the priority of claim to the operation, his re-

marks being, in substance, like those of last year, when speaking of the same subject. He thought that the occurrence of calculus in the female bladder after operations for the relief of vesico-vaginal fistulæ might be owing to a fold of the walls of the bladder having been turned in so as to form a projection into its cavity, thus favoring the accumulation of the material of the calculus.

The PRESIDENT announced that the Nominating Committee would meet at Dr. Vanderpoel's office at 8 o'clock P.M., and requested that all nominations might be handed in before that hour.

TREASURER'S REPORT.

The TREASURER, Dr. Charles Porter, then presented his report, showing a number of societies and colleges in arrears to the amount of $310. The total receipts for the year were $1,012.39, and the expenditures $633.45, leaving a balance in Treasury, Feb. 6th, of $378.94.

On motion, the report was referred for examination to a Committee of Three, consisting of Drs. Teft, Wilkin, and Husted.

CHRONIC INVERSION OF THE UTERUS.

Dr. WHITE, of Buffalo, then read a paper on Chronic Inversion of the Uterus, illustrated by cases, and exhibited to the Society a uterine repositor, of his invention, for use in these cases; the instrument consisting of a disc or cup-shaped extremity of a piece of wood, the other end of which is attached to a spiral spring, which is intended to rest against the breast of the operator, and by means of which elastic pressure can be steadily maintained while the hands would be free—one to manage the extremity applied to the fundus uteri, and the other to manipulate the cervix through the hypogastrium. He followed Dr. Quackenbush's views with regard to the mode of reduction, and agreed with him that a case is seldom or never to be seen which is not reducible under proper measures, viz, folding the cervix upon itself, the fundus being returned last.

Dr. QUACKENBUSH endorsed Dr. White's remarks, and called attention to the direction in which force must be applied, viz., nearly at a right angle to the vagina, and in the direction of the axis of the uterus. He also remarked that the uterus seldom or never protrudes from the vulva in inversion.

OPHTHALMIC CASES.

Dr. RIDER, of Rochester, read the notes of several ophthalmic cases, two of which were of inflammation of the lachrymal gland following parotitis; the first cases recorded, he thinks, of this complication. He also mentioned a case of lodgment of a piece of percussion-cap in the eye, where it remained for 35 years without causing irritation; which is the longest residence of a foreign body in the eye of which we have any record.

SURGERY OF CHILDHOOD.

Dr. POOLEY, of Westchester, then read a paper on the Surgery of Childhood, remarking the dearth of literature on the subject, as compared with the medical history of their diseases, and indicating several points of difference between the course to be followed in diagnosticating and treating their diseases as compared with those of adults; especially in the treatment of fractures, and in the use of chloroform.

The Society then adjourned at 6 P.M., to meet again in an hour and a half.

FIRST DAY—EVENING MEETING.

The Society having again met, Dr. ROCKWELL, of New York, read a paper on the present state of Electro-Therapeutics, and exhibited to the members a variety of new apparatus.

Following Dr. Rockwell, Dr. DIDAMA announced that the Committee on Business had asked Professor Doremus, of New York, to make a few remarks to the Society relative to the law regulating the examination of druggists and their clerks in the city of New York.

Dr. KRACKOWIZER, of New York, arose to a point of order. He believed, he said, that all present were sufficiently acquainted with the merits of this bill; that the city of New York was exclusively affected by it, and he could think of no reason for bringing it before a meeting of this Society, especially since it would tend to commit the body to one or the other side of the question. If it related to our own profession alone, and should, after receiving the endorsement of the Society, nevertheless fail to become a law, it would be a circumstance to be regretted, but, in the course of its duty, unavoidable. The assumption, however, of the cause of one or the other of these parties, could do the Society no credit.

Dr. SQUIBB, of Brooklyn, referred to the fact of his having, at the last yearly meeting, advocated the passage of a bill, on which occasion he made some remarks, and offered resolutions. He felt sure that this Society had the deepest interest in the passage of such a law, for the physician diagnosticates in vain if he does not have the aid of therapeutics in the treatment of disease. The Society may be of the greatest assistance in increasing the educational facilities of the pharmacist; and it was because the old law did not have an educational basis, that he did not, after its passage, give it his approval. The proposed substitute for it is open, in a less degree, to the same criticism. He would, however, oppose the discussion of the question by the Society on other grounds, viz., that it would consume too much time, and would, perhaps, render it necessary to hear the other side.

Dr. KENDALL rose to the point of order, that a point of order is not debatable.

Dr. ELLSWORTH ELIOT believed that Dr. Doremus was neither a delegate, regular or honorary member, and therefore could not address the meeting.

Dr. DIDAMA, on behalf of the Committee on Business, rose to explain that Professor Doremus was present by invitation of the Committee; that he did not intend to discuss the question, but simply to make some statements with regard to the necessity for *some* law to regulate these matters. A motion was then made by Dr. Didama, that Dr. Doremus be invited to address the meeting, which was at length carried; a motion by Dr. Krackowizer, to the effect that the action of the Committee on Business be rescinded, having been lost on a rising vote.

PROF. DOREMUS then narrated some of the difficulties encountered in the examination of candidates for licenses, some of them being quite amusing. He remarked that substitution in a prescription, by mistake, of a poisonous substance for a harmless one, was about as seldom as death by lightning; but what is of greater importance is the fact that prescriptions may not be faithfully put up; cheaper articles being substituted for those ordered, or even half the amount required by the prescription.

Being solicited to retain the floor, he described to the Society a new process by which perfectly pure oxygen is being made with the aid of the manganate of soda or potassa, at an expense of not more than $1.00 per 1,000 cubic feet (the process of M. Tessier).

On motion of Dr. King, the thanks of the Society were tendered Dr. Doremus.

The Secretary announced that an entertainment would be given on the next (Wednesday) evening at the Delavan House, following the President's Address.

Dr. Didama moved, in view of the amount of business to be transacted, that when the meeting adjourn it be until nine o'clock on the following morning. Carried.

Dr. Krackowizer offered the following:—

Resolved—That while thanking Dr. Doremus for his information, and while listening to his remarks on the action of the druggists in the City of New York, this Society, representing the professional interests of the whole State, does not assume to pronounce for or against a drug-law, enacted for a single city only.

Accepted.

The meeting then adjourned.

Second Day—Morning.

The meeting was called to order by the President at 9 A.M., and the exercises of the day commenced with a prayer by the Rev. Dr. Upson; after which the minutes of the previous day's meeting were read and accepted.

REPORTS OF COMMITTEES.

Dr. Kendall made a verbal report of his visit as a delegate from this Society to the New Hampshire State Medical Society.

THE PROTECTION OF FOUNDLINGS.

Dr. Jacobi, Chairman of the Committee appointed last year to make a report on the above subject, then addressed the meeting. The time allowed him being too short for the reading of the whole report, he confined himself to a few general remarks and to the reading of some of the statistics of the Foundling Institutions of New York City, and the following series of conclusions indorsed by the Committee.

COMMITTEE ON THE PROTECTION OF FOUNDLINGS.

In accordance with the facts and conclusions contained in this report, which we have the honor of presenting to the Medical Society of the State of New York, we desire to propose the following:—

That the life and health of every infant is, both economically and morally, of paramount importance to society and to the Commonwealth:

That it is the duty of society and State to grant every infant the possibility of living and obtaining an education:

That it can under no circumstances free itself of its responsibilities by throwing them upon private individuals; but should take charge of every infant deprived of its parental protectors by death or incompetency:

That science and experience have united on certain principles to be observed in the raising of the young:

That human breast-milk is more appropriate than artificial food; the country more wholesome than a large city; and an inferior private dwelling better adapted than a large, over-crowded institution, to the raising of an infant:

That the practice of uniting lying-in asylums with infant asylums or hospitals is a direct source of dangerous disease, and fearful mortality:

That the accumulation of many infants under one roof, under the best possible circumstances, and with as gentle care as is observed in New York State and City, is conducive to ill-health and unavoidable mortality; this system having been given up in Europe for this very reason:

That, according to the statistics of our own large infant asylums, especially the Infant Hospital, under the charge of the Commissioners of Public Charities and Correction; the Catholic Foundling Asylum, under the charge of the Sisters of Charity; and the Nursery and Child's Hospital, under the charge of a Board of lady managers—all in New York City—their infant mortality is immense, and equal to the mortality of the large foundling hospitals of Europe before a radical change in their system of management was instituted:

That the necessity of distributing abandoned infants among private families, especially in the country, is urgent:

That the Medical Society of this State recommend such a change in the manner of caring for abandoned infants:

That the State should see that this change be made as speedily and fully as possible, by all the public and self-constituted authorities concerned in the care of foundlings; inasmuch as it has positive responsibilities towards every member of society in general and the young and feeble in particular:

That, however, the State should not interfere with private charity towards foundlings, so long as the interests of the infants and the Commonwealth are not injured:

That the State ought not to be held responsible for expenditures not incurred by itself nor under its own control; that private charitable societies should not assume duties beyond their own means; and, in particular, that, while private charity and enterprise must be encouraged, private ambition and officiousness must not be indulged in at the expense of the taxpayers:

That therefore, when private individuals or corporations ask the Commonwealth for permission to administer charity on a large scale, under the rules and regulations of a charter, this permission and charter does not involve that the State should be tributary to such individuals or corporations:

That, as medical men and citizens of the republic, we are of the opinion that the maintenance of large institutions for the care of foundlings, by the payment to them by the State of eight dollars per head per month, is not productive of good results:

That the probability, or possibility, of frequent changes in the administration of such institutions, which are, moreover, liable to be placed under the charge of persons whose qualifications for the solution of questions of the greatest difficulty and importance is frequently doubtful, is a source of great danger to both the infants and to the Commonwealth:

That the supervision and control of all the abandoned infants of the State belongs alone to the State; no matter whether they are sustained by the State, or by private individuals or corporations:

That we see in such supervision and control no unrepublican centralization, but the performance of a duty of the Commonwealth towards the feeble and dependent young.

In concluding, Dr. Jacobi desired that the Society would discuss the questions included in the report.

Dr. Joel Foster, of New York, hoped, in view of the importance of the subject, that action upon the paper might be deferred until the next annual meeting, in order that the other side of the question might have an opportunity to be heard. He then proceeded to explain the organization known as the Protestant Infant Asylum of New York City. He doubted if the plan of sending children into the country to be nursed, as Dr. Jacobi proposed, could ever be carried out; and if so, whether it would be more saving of life than the plan adopted by the institution which he had just mentioned, which required the mother to remain with and nurse her own offspring. The objection, which Dr. Jacobi had mentioned, of having a lying-in hospital and nursery combined, had been avoided in this case by the use of separate buildings for these purposes.

Dr. Jacobi was glad to find that Dr. Foster held so nearly similar views with himself on these questions.

He believed that the plan of collecting babies together in institutions to be bad, even when their mothers remained with them, as experience had proven that children, with the care of their mothers, do better at home, even with apparently much poorer hygienic conditions as regards light, air, food, etc., than when so collected, even though the mothers should remain with them. As the Protestant Infant Asylum had been in existence but a quarter of a year, it would be unfair to criticise its results even if they were known. It is not, however, the usual monthly or annual statistics of such institutions which are of interest, but the fact of how many babies are alive at the end of a certain time. He did not understand what Dr. Foster meant by "the other side of the question," for his knowledge of these different institutions had been obtained solely from their official records.

Dr. Stephen Rogers moved the acceptance of the report, and, speaking of it, said that Dr. Jacobi had omitted to state, as plainly as he thought the circumstances merited, the fact that some of the decrease in mortality in the Randall's Island institution was owing quite as much to the establishment in the city, in 1868, of the nursery under the care of the Sisters of Charity, as to improvement in management, etc., in the former institution.

Dr. Jacobi, in answer, simply referred to his report and the figures contained therein, where would be found mentioned not only the decrease in the number of admissions, but also an increase in the number of wet-nurses. Report accepted.

STANDING COMMITTEE ON BY-LAWS.

Dr. White, of Buffalo, reported that the by-laws of the following County Societies—of Niagara, Broome, Chemung, Rockland, and New York Counties—had been submitted to the Committee; and wherein they differed from the by-laws, rules, and regulations of the State Medical Society, and the laws of the State, such difference had been pointed out and the by-laws returned for alteration.

REPORTS OF DELEGATES.

The following reports of delegates were accepted, and referred to the Committee on Publication:—

Drs. Ferris Jacobs and John H. Van Kleeck, delegates to the New Jersey State Medical Society, reported they had performed their duty.

Of Dr. Samuel Hart, delegate to the Rhode Island Medical Society.

Of Dr. H. S. Shubbuck, to the Pennsylvania Medical Society.

Of Dr. Newman, to the Connecticut State Society.

Dr. Kendall, delegate to the New Hampshire State Medical Society.

COMMITTEE ON PRIZE ESSAYS.

Dr. White, on behalf of Drs. Thomas F. Rochester and Henry W. Dean, Committee on Prize Essays, submitted their report. But two were offered, viz.: "On Uses and Abuses of Sea-Bathing," and "Why do Plants Absorb, as Component Constituents of their Frames and Organs, Certain Chemical Elements in Preference to Others?" For reasons explained by Dr. White, no award of the Merritt H. Cash Prize was recommended by the Committee. Accepted.

Dr. Rogers moved that the Committee on the Protection of Foundlings be continued; and that Dr. Joel Foster, of New York, be added to it. Adopted.

Dr. Chamberlain, of New York, called attention to page 46 of the published proceedings of 1870, in which he is misrepresented as using, in reference to Dr. Sayre, language that could never have been spoken.

The Secretary regretted that such a mistake should have occurred, and explained to the Society the trouble which had been experienced in securing the services of a phonographer during the session of the Legislature.

Dr. White, of Buffalo, moved that Dr. Chamberlain be permitted to write out his correction of the published minutes of proceedings of 1870, and that such correction be published in the minutes of the present meeting. Adopted.

MEDICAL EDUCATION.

Dr. F. B. N. Lewis offered the following:—

Whereas, The medical faculty of Harvard University have taken a most important step toward the more thorough preparation of medical graduates, so much needed at this time, by extending the time and mode of study, and by successive and extended examinations; be it

Resolved, That this Society, desiring to encourage any means pointing to the better education of medical men, extends its congratulations to the said faculty of Harvard University, with sincere desires of their success in this most necessary advance.

Adopted.

A communication was received from J. P. Griffen, Secretary of Board of Trustees of the Syracuse University, asking the State Society to appoint a Censor.

On motion of Dr. Bradford, as amended by Dr. Kendall, the communication was accepted and referred to the Nominating Commitee.

THE CAUSATION OF INSANITY.

Dr. Gray, of Utica, read a paper on the above subject, an abstract of which will appear later in our columns. Then followed a few remarks by Drs. Cook, of Canandaigua, and Coventry, of Utica.

Dr. Husted, from the Committee on the Treasurer's Accounts, reported that they had found the vouchers and accounts correct; and that some of the County Societies were backward in payment of their dues. Report accepted.

PAPERS READ BY TITLE.

Dr. Didama, Chairman of the Business Committee, read the titles of the following papers, which were accepted and referred to the Committee on Publication: Intussusception, by Stephen Rogers, of New York; Obituary Notice of Dr. Edward Hall, of Auburn, by Dr. Cummins; Memoir of Dr. John H. Reynolds, of Wilton, by Dr. Allen, of Saratoga; Obituary Notice of Dr. Alfred E. Varney, of Middleville, by Dr. C. W. Hamlin; Memoir of Dr. C. Barrows, by Dr. Hutchinson, of Utica; Annual Address before Oneida County Medical Society, by Dr. H. N. Porter; Biographical Sketch of Dr. Andrew Van Dyck, of Oswego, by Dr. J. B. Murdoch.

PHOTO-MICROGRAPHS FROM THE SURGEON-GENERAL'S OFFICE.

Dr. Squibb presented to the President of the Society a collection of photo-micrographs, with accompanying notes of explanation, embracing some of the prominent points of the investigations of the Army Medical Museum, and illustrating the active progress made under the Surgeon-General of the Army during the past year; and as supplementary to the report of the committee of this society on this subject at the last annual meeting. Upon the single subject of the important investigations of Cohnheim and others, on the minute blood-vessels, and the results of these observers in regard to the mechanism and results of inflammation, these researches exhibit

their importance, and their value to the profession at large can hardly be overstated.

He suggested that they be presented to the President of the Society, and that he be requested to take them home with him, and not leave them among the records and papers of the Society, where they would be of no service to anybody.

Dr. Ward made some remarks upon the processes for reproducing photographs, and presented to the Society, for publication in the Transactions, a carefully arranged list of the articles used in microscopic work, with information as to where the best kind of each article can be obtained.

Dr. Corliss presented some *highly interesting* notes of a case of dropsy, referring in the course of his remarks to his visit as a delegate to the Connecticut State Society last year.

BLEPHAROPLASTY.

Dr. Noyes, of New York, then described to the Society some peculiarities in the performance of this operation, illustrating his remarks with photographs and blackboard drawings.

PRODUCTION OF VOWEL AND CONSONANT SOUNDS.

Dr. Moore, of Rochester, detailed the results of the study of two cases which had come under his observation, in which unusual facilities existed for such investigation.

He also spoke of two cases of Colles' fracture of the radius, in which the ulna had undergone the peculiar form of luxation to which he had first called attention. We hope to give, before long, Dr. Moore's paper in full.

The meeting then adjourned until 2.30 P.M.

Second Day—Afternoon.

The Society having met according to adjournment, the Vice-President occupying the chair, Dr. F. A. Burrall, of New York, offered the following:

PROPOSAL TO CHANGE TIME OF MEETING.

Whereas, The present time of meeting of the State Medical Society is at a season when travel is often impeded by snow and cold; when the medical schools are in session, and the professors unable to attend without much inconvenience; and when private practitioners are liable to be much occupied with care of the sick, whom they are reluctant to leave; therefore,

Resolved, That this Society consider the propriety of obtaining a legislative enactment to enable it to hold its session at a more favorable time.

A considerable discussion followed on the part of Drs. Corliss, Peters, Sanders, Govan, Ayres, French, and Willets; and, on motion of the latter, the whole matter was referred to the Business Committee.

A RADICAL IDEA.

Dr. Coventry, of Utica, offered in a resolution certain amendments of the Constitution of the American Medical Association to be presented by the delegates of this Society at the next annual meeting of the former. The substance of the amendments being, that the qualifications for admission to membership should rest on the legal right to practise medicine, and not be influenced by differences in views with regard to therapeutics.

After some discussion, the motion was tabled.

CHLORAL HYDRATE IN CASES OF RIGID OS UTERI.

Dr. Caro, of New York, read parts of a paper on The Use of Chloral Hydrate in Cases of Rigid Os Uteri. The paper being accepted and referred to Committee on Publication, the Doctor then exhibited one of the flexible catheters shown by Dr. Squires at the last annual meeting, and related a case in which it had proven very valuable.

"AN ACT TO PROTECT THE PEOPLE AGAINST QUACKERY AND CRIME."

Dr. Rogers, of New York, explained at length the bill which we printed in our last issue. A lengthy discussion followed, on the propriety of encouraging legislative action in behalf of the medical profession, and a resolution, proposed by Dr. Hutchinson, of Brooklyn, was adopted, as follows:—

Resolved, That the Medical Society of the State of New York disapproves of the proposed law, now before the State Legislature, entitled "An Act to Protect the People against Quackery and Crime."

Adopted.

Dr. Rogers called attention to the law in relation to criminal abortion, and moved that it be the expression of the Society that it is commendable and deserving of approbation. Agreed to.

VENESECTION.

Dr. Tupper, of Washington County, read the usual paper on "Venesection," but the usual discussion did not follow.

MALIGNANT TUMOR OF THE ORBIT.

Dr. Hutchinson, of Utica, read the notes of a case of the above nature.

INTRODUCTION OF DELEGATES.

Dr. Quackenbush introduced Dr. Hunt, of the New Jersey State Medical Society, and Dr. Allen, of the Pennsylvania State Medical Society, who, having been welcomed by the President, made a few remarks.

SOME OF THE CAUSES OF DEATH OCCURRING SOON AFTER CHILDBIRTH.

A paper on the above subject, by Dr. James S. Bailey, was read by title and referred.

PARACENTESIS OF THE MEMBRANA TYMPANI.

Dr. Prout, of Brooklyn, read the history of a case of chronic catarrh of the middle ear, in which the above operation was an important element of treatment.

Dr. Roosa, of New York, remarked that the importance of inflammation of this locality was not as thoroughly comprehended or its treatment as well understood by general practitioners as should be the case; in evidence of which he pointed out the number of inmates in our deaf and dumb asylums.

Dr. Squibb, from the Special Committee to consider the question of "Medical Education," presented a report and resolutions.

MEDICAL EDUCATION.

The Committee on the subject of Medical Education, as received from the American Medical Association, beg leave to report as follows:—

The American Medical Association, at its meeting in 1869, inaugurated the most important professional movement of late years.

This movement may be briefly stated as follows:—

It starts upon the basis that the medical schools of this country entirely control the entrance into the profession, and that by the increasing number, and increasing competition of the schools, the profession is recruited upon too low a standard of both capacity and qualification, and from improper material; and further, that the

schoo's practically refuse to correct these increasing evils.*

Under these circumstances, the entire profession is falling behind the general progress of modern science, and does not fulfil its whole duty either to itself or the community. Hence it becomes necessary for the profession to assume the control of admission to its own ranks, without regard to the standards of the schools, and to adopt some plan of discrimination upon the basis of ascertained capacity and qualification.

The plan proposed is by the establishment of boards of censors in all State and local medical societies. These boards of censors are to determine, first, the capacity and qualifications of young men who seek to prepare themselves for the medical profession. This is sought for in the following resolution, which was adopted at the Twenty-second Annual Meeting of the American Medical Association; which is self-evidently at the basis of the scheme of reform and its most important feature for the present time:—

"*Resolved*, That each State and Local Medical Society be requested to provide, as a permanent part of its organization, a Board of Censors for determining the educational qualifications of such young men as propose to commence the study of medicine, and that no member of such societies be permitted to receive a student into his office until such student presents a certificate of proper preliminary education from the censors appointed for that purpose, or a degree from some literary college of known good standing."

Next, the Association aims to effect a gradual change in the present medical organizations by controlling entrance into these societies upon the basis of an examination by boards of censors of all candidates for admission to membership. This is sought for by the following preamble and resolution:—

"*Whereas*, The history of medical legislation in the various States of the Union clearly shows that no reliance can be placed on either the uniformity or the permanency of any laws relating to the practice of medicine; and

"*Whereas*, The results of all the efforts made during the last twenty-five years to elevate the standard of medical education, through concert of action among the numerous medical colleges of this country, have proved with equal clearness that such concerted action, in an efficient manner, is unattainable; therefore, be it

"*Resolved*, That whatever is done to establish and maintain a just and fair standard of medical education throughout our whole country, must be done by the profession itself, through its own voluntary organizations, in the same manner that it now establishes and enforces its code of ethics. The profession is as competent to declare, through its representatives in the National, State, and local Societies, what shall be the standard of attainments for those to be recognized and admitted into its ranks, and to establish the boards or agencies by which compliance with such standard shall be ascertained, as it is to declare what shall be the ethical rules governing the conduct of those already admitted.

"*Resolved*, That this Association earnestly requests each State Medical Society to appoint annually one or more Boards of Examiners, composed of five thoroughly competent members, whose duty it shall be to meet, at suitable times and places, for the examination of all persons, whether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective States, except such as have been previously examined and licensed by a similar Board, in some other State.

"*Resolved*, That each State Medical Society be requested to make such regulations concerning the pay of the Board of Examiners, and the fee to be charged for a license to practice. The former shall in no case depend on the amount received from the latter.

"*Resolved*, That each State Medical Society be requested to require its Examining Board or Boards to exact of every applicant for examination, adequate proof that he has a proper general education, is twenty-one years of age, and has pursued the study of medicine three full years, one-half of which time shall have been in some regularly organized medical college, whose curriculum affords adequate facilities for didactic, demonstrative, and hospital clinical instruction.

"*Resolved*, That each State Medical Society be requested to act on the foregoing propositions at the next regular annual meeting after the reception of copies of the same, and if approved and adopted by the State Medical Societies of two-thirds of the States, this Association shall deny representatives from all organizations who longer refuse to comply with the same, and shall recommend the State Societies to do the same; and all persons who after that date seek to enter upon the practice of medicine without first receiving a license from the State Board of Examiners, shall be treated, ethically, as irregular practitioners.

"*Resolved*, That in adopting the foregoing resolutions, by which it is proposed to treat the medical college diploma the same as the diploma of any literary college, this Association is actuated by no desire to injure the medical schools of our country. On the contrary, by the adoption of the fourth resolution, at the same time that the value of the mere college diploma is practically nullified, it is the desire, and confident expectation, that those institutions will be greatly benefited; because they will be forced to rival each other in the extent and efficiency of their courses of instruction, instead of the number of diplomas which they can annually distribute."

Your Committee fully recognize the grave necessity for this movement, and the wisdom of the proposed plan of action, and would, were it possible, add to the forcible expressions of the Committee of the National Association in its report, herewith reproduced, and which should be carefully read and reread by every thinking member of the profession.

The question now to be decided is, how far this Society may wisely go with the best ultimate effect upon the progress of this vital reform, which is certainly inevitable, if the profession is to sustain its important relations to the community.

Remembering the radical changes proposed in this plan, and the liability of defeating the object by any sudden effort on the part of this Society to control its constituents in the way proposed, your Committee conclude to recommend that, for the present moment, this Society urges upon its constituent local societies the especial and careful consideration of this whole subject, with a view to future action, so that all delegates may come to this body after mature thought and discussion of the matter in all its complicated bearings, and in readiness to act with that decision and determination which alone can make any action effective or useful.

Many years ago this Society passed a resolution recommending the Censors of the County Medical Societies to examine the qualifications of young men who presented themselves to become students of medicine under the preceptorship of the members of each local Societies, and Dr. Bradford, of your present Committee,

* Since this action by the National Medical Association a prominent exception to this charge may be found in the instance of Harvard University.

testifies that in Cortland County the resolution was carried out by the Board of Censors, of which he was a member, with good effect. This initiatory step in the movement, which now underlies this entire plan as proposed, seems to be comparatively simple and easy; and your Committee advise that it be now recommended to the local societies as a fundamental portion of the plan, and as an indication that this work is now to be undertaken in greater earnest by the Society; therefore,

Resolved, by the Medical Society of the State of New York, That the County Medical Societies which constitute this Society, direct their several Boards of Censors to examine and determine the educational qualifications of such young men as propose to commence the study of medicine, and to certify to the fitness of all such as may be found qualified.

Resolved, That the Censors of this Society for the several districts be and are hereby constituted Boards of Censors for examining and certifying such qualifications for all the counties within their several districts, in addition to the Censors of the County Medical Societies.

Resolved, That any regularly organized Board of Censors, whether of the State or County Societies, be competent to conduct and certify to such examinations, for all persons who may come before them for the purposes herein specified.

Resolved, That no member of any medical organization represented in this Society, be permitted to receive a student into his office until such student presents the certificate of a Board of Censors showing his qualifications to enter upon the study of medicine.

Resolved, That the accompanying Report on Medical Education, adopted by the American Medical Association, together with this report and resolution, be printed separately in the form of a circular, and be sent to the presiding officers of all the organizations represented in this Society, in sufficient numbers to supply each individual member of such organizations.

Respectfully submitted,
E. R. SQUIBB.
ELLSWORTH ELIOT. } Committee.
GEO. W. BRADFORD.

By DR. GAY:

Resolved, That the action of the American Medical Association at its twenty-second session, in the adoption of these resolutions, meets the approval of the Society; and,

Resolved, That any county medical society failing to comply with this request shall be subject to the discipline of this Society.* Adopted.

READING OF PAPERS.

The following papers were then read and referred to the Committee on Publication:—

DR. GURDON BUCK, of New York, on Hypertophy of the Lower Lip, treated by Surgical Operations.

DR. M. R. HOLBROOK, on Gunshot Wounds of the Skull: and DR. GAY, on The Defence of Taxis in Strangulated Hernia, in which he recommended the prone or semiprone posture, as rendering the walls of the abdomen tense, and thus stretching open the abdominal ring, in preference to the supine position, as usually adopted.

The meeting then adjourned until 8 o'clock.

SECOND DAY—EVENING.

The Society met at the hour above mentioned, in the Assembly Chamber, and listened to an address by President Wey, on "Medical Responsibility and Malpractice," which gave very general satisfaction. Following the address, the regular members, delegates, and invited guests, to the number of about five hundred, assembled at the Delavan House, and had a magnificent supper; the following gentlemen of Albany being the donors of the entertainment: Thomas Hun, M.D.; J. V. P. Quackenbush, M.D.; John Swinburne, M.D.; Wm. H. Bailey, M.D.; Chas. A. Robertson, M.D.; L. Babcock, M.D.; W. C. Wey, M.D.; Chas. H. Porter, M.D.; J. R. Boulware, M.D.; Levi Moore, M.D.; Joseph Lewi, M.D.; S. O. Vanderpoel, M.D.; Wm. H. Craig, M.D.; Edward R. Hun, M.D.; Jacob S. Mosher, M.D.; Amos Fowler, M.D. No speeches were made,—the general good feeling not seeming to require it.

THIRD DAY—MORNING.

The meeting being opened at 9 o'clock with a prayer by Dr. Bridgman, on motion, the rules, which require the reading of the minutes, were suspended.

The President announced the following appointments to prepare obituary notices: Dr. Hiram Corliss, on Dr. B. P. Staats; Dr. Wm. R. Roberts, on Dr. Henry D. Bulkley; Dr. T. H. Squire, on Dr. E. L. Hunt; Dr. B. F. Sherman, on Darius Clark.

THE SECRETARY stated that numbers of gentlemen having asked for copies of the published proceedings of 1870, he would state that a sufficient number to supply every member of the County Societies had been sent to their Secretaries; and the size of the edition would not admit of duplicate copies being given.

DR. BABBIT, of the Massachusetts Medical Society, was then introduced to the Society, and made a brief address, which was replied to by Dr. Corliss.

The Chair announced as Committee on Changing the Time of the Annual Meeting: Dr. Vanderpoel, of Albany, Dr. White, of Buffalo, and Dr. Hutchinson, of Brooklyn.

CHANGES IN THE BY-LAWS.

DR. PETERS, of New York, then offered the following resolutions, which were adopted:—

Resolved, That Art. VI., paragraphs 1 and 2, of the Code of Ethics of the American Medical Association, be added to the Code of Ethics of the Medical Society of the State of New York; and that the presidents and officers of the various County Medical Societies be ordered to enforce the same.

Resolved, As the old laws requiring every physician in good standing to become a member of his county medical society have not been repealed, it is, and always has been, the duty of every such physician to obey the law; and, as the penalty for non-compliance has been removed by law, it becomes a point of honor for every regular physician to do so. The presidents and officers of every county society in the State of New York are requested to use their best efforts to have these laws complied with.

THE SECRETARY asked attention to that part of the Treasurer's report which referred to the arrearages of County Societies and Colleges.

REPORTS OF COMMITTEES.

The Committee on Nominations presented their report, the following being a portion of it:—

President—Cornelius R. Agnew.
Vice-President—B. F. Sherman.
Secretary—Wm. H. Bailey.
Treasurer—Charles H. Porter.
For Censors—Southern District: Edward R. Squibb, Samuel T. Hubbard, H. C. Husted. Eastern district: James L. Babcock, P. McNaughton, C. C. Covell. Middle District: M. M. Bagg, Horace Lathrop, Charles

* See Part 5, Sec. ii, Constitution State Medical Society, adopted Feb. 2, 1869, page 72, Transactions 1869.

G. Bacon. Western District: J. F. Minor, C. F. Wyckoff, D. Colvin.

Permanent Members—First District: Nathan Bozeman, James L. Little; Second District: M. R. Holbrook, A. C. Hull; Third District: Leroy McLean, P. V. S. Pruyn; Fourth District: Arthur S. Wolf, Henry H. Green; Fifth District: G. L. Halsey, Edwin Hutchinson; Sixth District: Joshua B. Graves, J. H. Squire; Seventh District: C. G. Pomeroy, C. C. Murphy; Eighth District: Charles E. Rider.

For Honorary Members—M. Nélaton, Rudolph Virchow.

Eligible to Honorary Membership—Lewis Oakley, Elizabeth, N. J.; Charles H. Hewit, Red Wing, Minn.; J. M. Toner, Washington, D. C.; Joseph B. Brown, U. S. A.

For the Degree of M. D—Cornelius H. Schaaps, Brooklyn; Wm. Lamont, Schoharie.

The Committees on Statistics, Prize Essays, Publication, and By-Laws, remain as last year.

On motion, the report of Committee was accepted, and the President and Secretary requested to cast affirmative ballots for the first four officers named in the report.

No ballot was taken on the remaining names.

The Committee on the President's Address then reported as follows:—

ON PRESIDENT'S ADDRESS.

Your Committee, with reference to the President's Address, would respectfully report:

That they have considered the recommendations therein embodied—One of these, viz., that which alludes to the alteration of the law with reference to suits for malpractice, you have already acted on, and we have nothing further to say.

First in order, we find an exhortation to further attention to instruction in ethics for the youth in medicine; both by the preceptor and professor. Questions of casuistry and ethics in all relations of society are notoriously difficult of definition and enforcement, and your committee strongly sympathizes with the President's views of the necessity of further instruction of the young in these matters. They also believe, with him, that a higher grade of education preliminary to commencing the study of medicine is a good basis for a finer appreciation of sound ethics as well as sound science.

The delay in the publication of our Transactions is one of such gravity as to compel a change, unless there should be a different result in the future; and your committee has carefully considered this subject and consulted with printing firms as regards the cost. This we find would be, at least, a dollar a volume, and probably more. An edition of four thousand volumes, which is the number at present issued, would call for about five thousand dollars, if we add the expense of the plates, which are indispensable. If we raised a fund, the interest of which should be appropriated to defray the annual expense, and reduce the edition, we cannot accomplish the object with any capital less than fifty thousand dollars. In view of all the facts, and in consultation with some of the best informed gentlemen in relation to this subject, your Committee recommend that no change be made this year, with a hope, founded on belief, that the current year will show an improvement in this matter.

The desire for a permanent home for the Society is a feeling that the Committee entertain in common with the President, and, as the Society could hardly expect the Capitol Commission to give us the exclusive use of a hall, which we would occupy but once a year for a week, we would recommend that the commissioners be consulted in the matter, in the belief that various associations of the State need such accommodation at various times through the year, and that such a hall would be an eminently proper construction by the State. If we could have the permanent use of said hall for one specific week in the year, and a smaller room or rooms for the office and museums of the Society, the object would be attained.

We therefore recommend that a committee be appointed to confer with the Commissioners on the Capitol Building, and urge these views upon them.

The recommendation to cut ourselves off from all association with any man who applies to the court for an injunction upon a county society, to restrain it in the trial of a member, is one of great value.

If we were a voluntary instead of a chartered institution, this is all we could do, except the public declaration that he was not a member, and also his expulsion from our company. As the law now stands, the Society is subjected to great annoyance and injustice in this matter, and several suits have been decided against the societies. But this plan of giving judgment by default is one that we *can* practice, and if charges are preferred against a man who stops the proceedings by law, he confesses the charges, and judgment must go against him. The law may compel us to open the doors of the Society to his entrance, but it is powerless to compel an honest man to recognize a trickster whether he violates the rules of good-breeding or the high moralities of medical ethics.

PAPERS READ BY TITLE.

Obituary notice of Dr. Bibbins, of New York, by Dr. Ellsworth Eliot.

Report of Dr. Govan, Delegate to Massachusetts State Medical Society.

DISCIPLINE OF MEMBERS.

DR. ROOSA offered the following preamble and resolutions, which were adopted:—

Whereas, The Code of Ethics, to which this Society and the various county societies acknowledge allegiance, provides appropriate and sufficient means for obtaining redress in all matters of difference between physicians,

Resolved, That any physician preferring charges, or against whom charges may have been preferred, who shall resort to courts of law or any legal process, shall be considered unworthy of membership in medical societies; and if a member, shall be declared expelled by the President at a stated meeting of the Society to which the offender may belong.

Resolved, That a copy of this resolution be sent to the American Medical Association.

DR. SQUIBB thought that the attention of the Society should be especially directed to the fact that, whether voluntarily or otherwise, the responsibility of the publication of the annual reports might at any time be thrown upon the Society. For some time past certain members of the Legislature had found fault with the appearance of the reports, which, on account of the lack of interesting material, had ceased to have any value as electioneering documents. They were about as tired of pictures of deformed babies, etc., as they were of double-headed calves and big turnips in the reports of the State Agricultural Society; and unless the Society could give them prettier pictures, and articles calculated for popular reading, they would not be bothered with the publication of them.

On motion of Dr. Clark, of Oswego:

Resolved. That the President and Secretary of this Society be instructed to endeavor to procure from the Legislature such an amendment of the Acts defining and limiting its privileges as shall empower it to elect to permanent membership members of County Societies, without limitation as to members, who are now eligible, or, as delegates from such societies, shall have attended four annual meetings of the State Society.

Dr. Corliss felt grieved that the paper on Causes, Prevention, and Cure of Tubercular Puthisis, for which he had paid a prize of $100, and offered to sustain half the expense of publication, if printed independently of the Report of the Society, had never yet been made public. Since the time of its presentation over 50,000 persons had died of this disease in Great Britain and in this country, and he could not help the feeling that a general knowledge of the contents of this paper might, possibly, have saved a few of these lives.

The Business Committee having announced that they had nothing further to present for action, on motion, the Society adjourned *sine die*.

Progress of Medical Science.

Management of Dysentery.—J. Hale, M.D., of Owensborough, Ky. (*American Practitioner*), reports some of his favorite prescriptions, which he has found to be useful in cases under his observation. The following formula, for dysentery, was introduced in that section by Dr. Murray, an eminent practitioner, twenty-five years since, and has been in general use ever since by many Kentucky physicians: R. Sodæ sulph. ʒj.; Morphiæ sulph. gr. j.; aquæ puræ, ʒvj. S. Tablespoonful every two hours until free watery operations are produced, then prolong the interval to four hours, and continue until the dysenteric discharges, pain, tenesmus, etc., cease.

Dr. Hale has used it, with most favorable results, for the past fifteen years. If properly administered in the early stage of spasmodic dysentery, it seldom fails to control the disease in two or three days.

Fibro-cystic Tumors of the Uterus.—Dr. Charles C. Lee, Surgeon to Charity Hospital, N. Y. (*N. Y. Med. Journ.*), publishes 19 cases of fibro-cystic tumors, which were excised by different surgeons, under the impression that they were ovarian cysts. He says that M. Koeberlé is of opinion that fibro-cystic disease never appears under thirty years of age, but, among these reported cases, two exceptions to this rule are found. In conclusion, the differential diagnosis between uterine fibro-cysts and ovarian cystic tumors is clearly pointed out.

Tænia Solium in an Infant.—Dr. Samuel G. Armour, of Brooklyn, N. Y. (*Detroit Review of Medicine*), describes the following unique case: An infant three days old, *with trismus*, was fed on the mother's milk in small quantities from a spoon; on the fifth day after its birth it commenced passing well-matured *Tenia solium*; segment after segment continuing to pass for five or six days, when the trismus ceased, and the child made a good recovery.

He has carefully examined the literature of the subject, and finds no such case on record. Neither *Küchenmeister* nor *Cobbold* make mention of the possibility of such a thing; and Vogel, in speaking of tænia, says: "They rarely affect children under one year of age; nursing perhaps never." How did the tænia, or the parasitic embryo, gain entrance to the intestinal canal of the fœtus in utero; for the child was fed on nothing but the mother's milk? To aid in the solution, he further states that two months after the birth of the child the mother was put on treatment for tænia, and has passed some seventy or eighty segments. But this does not solve the difficulty; it only increases it. How, he inquires, did the embryo parasite pass from mother to fœtus in utero, and gain entrance to the intestinal canal of the fœtus?

The Removal of Plaster-of-Paris Bandages.—Dr. J. Henry Carstens' paper on "Plaster-of-Paris," translated for the *Detroit Review* from *Berliner Klinische Wochenschrift*, by Dr. Med. B. Fraenkel, gives a concise way of overcoming the obstacles presented by the plaster-of-Paris in the application of bandages. It should be good and freshly burnt. By mixing the plaster with cold water, or a solution of gum arabic, a paste is formed which will harden slowly; a quickly hardening paste can be made with a solution of sulphate of potassa or water-glass.

In reference to the removal of plaster-of-Paris bandages, Dr. Carstens remarks that this application is very insoluble in water (1 part in 438); in concentrated solutions of chloride of sodium, however, it is quite soluble (1 part in 122). Common salt has not only the advantage of being always on hand, but it does not injure polished instruments, as other solutions recommended for this purpose do; if a plaster-of-Paris bandage is moistened with a saturated solution of salt, the bandage becomes in a few minutes so yielding that a sharp knife finds little resistance; in the cut some more of the mixture should be applied, and, after repeating this three or four times, the bandage can be easily removed.

To clean the hand and nails of the operator, table-salt solution is also very useful.

The Theory of Insanity.—Dr. William Carson, of Cincinnati, Ohio (*The Clinic*), refers to the subjoined proofs of the theory of insanity:—1. Hereditary taint, with unquestioned transmission to other members of the family—both this and age being predisposing causes. 2. Exciting causes, immoral habits, distress in business, and consequent unusual nervous tension. 3. Physical changes in the brain, which, under the influence of the predisposing causes, might be considered a basis for mental change. 4. Consistent physical and mental phenomena of concurrent and cumulative force.

Asthma.—This prescription is particularly recommended in cases of asthma, by J. Hale, M.D., of Owensborough, Kentucky (*American Practitioner*): R. Ether, sulph. ʒiss.; Tr. lobeliæ, ʒj.; Tr. opii, Tr. stramonii, āā ʒiv. M. S. Teaspoonful every hour or two until the dyspnœa is relieved.

A New Instrument for Treating Genito-urinary Passages.—Dr. Wm. Abram Love, Atlanta, Ga. (*Atlanta Med. and Surg. Journ.*), describes, with cut, his catheter for treating locally certain diseases of the genito-urinary passages, male or female. In irritability or catarrh of the bladder, or suppuration in that organ—whether due to gonorrhœa, gout, stricture, cold, or inability to entirely empty that viscus, the instrument will be found invaluable. This instrument has the advantage of having the internal orifice accessible by the porte-caustic, by which obstructions may be easily removed. Another advantage is, that any amount of surface, from a mere line to the whole length of a cavity or canal, may be medicated with fluids or solids,

and the application kept within the desired limits, the parts above and below escaping the application.

He has not found *orchitis* to follow the use of the instrument, as it does the use of injections in very many instances.

Puerperal Convulsions.—Six interesting cases of puerperal convulsions, and management, are recorded by Lunsford P. Yandell, M.D., Louisville, Ky., in the *American Practitioner*. In concluding, he states the induction of labor in puerperal eclampsia is a question to be decided by the practitioner in each case. Delayed long, the measure brings no relief. He would be inclined to bring on labor as a general rule, there being no strong reasons against it. Manual dilatation may be employed in many cases successfully when the os uteri is not unyielding; or warm douches may be directed against the cervix uteri; or finally Barnes' dilators may be resorted to. The douche, for convenience and efficiency, is probably entitled to the first place among these measures. It is never painful or dangerous unless carelessly used. The stream of warm water must be directed steadily against and within the rim of the os, and kept up until it becomes dilatable. After this the hand will secure dilatation, and when two fingers can be introduced, Barnes' dilators may be employed. The dilators are especially applicable in cases of hemorrhage, or where restlessness prevents the use of the warm water.

The Ophthalmoscope in Intracranial Disease.—Dr. Wm. F. Norris, of the Univ. of Penn. (*Phila. Med. Times*), calls attention to two interesting cases of intracranial disease, which were diagnosed by the aid of the ophthalmoscope. In one case, with failing vision, intense headache in the right temple, marked deafness, and the optic disks in a state of serous infiltration and bulging forward into the cavity of the eyeball, it was thought that the symptoms were due to a syphilitic gumma situated in the middle fossa of the base of the skull. The patient improved under treatment with mercury and iodide of potassium.

The other syphilitic patient, with frontal headache, dizziness, and great diminution of the acuity of vision, exhibited a commencing atrophy of the nerve, caused by an interstitial neuritis—a process which probably commenced within the cranium and marched downwards towards the eye (a true "neuritis descendens").

Dr. Norris brought these cases before his class to contrast two varieties of so-called neuritis; the one a venous engorgement of the optic disk, the other a true interstitial inflammation of the nerve; the one often accompanied with but little disturbance of vision, the other always by a considerable impairment of it; the one may have its origin in any augmentation of intracranial pressure, the other has usually for its starting-point an encephalitis or meningitis.

Tapeworm treated by Kameela.—S. R. Knight, M.D., Phil. (*Phil. Med. Times*), successfully treats cases of tapeworm by kameela. In the case of a patient, aged fifty-six, it was given according to the following formula: R. Kameelæ, ℥ ss.; Syr. simpl. f. ℥ i. M. S. Take a tablespoonful at a dose. After one dose a worm fifteen feet in length was expelled.

Labio-Glosso-Laryngeal Paralysis.—Dr. E. R. Hun (*Am. Journ. of Insanity*) thus sums up in regard to this disease: The prognosis in labio-glosso-laryngeal paralysis is decidedly unfavorable. Among the many cases reported, not one case of perfect recovery is mentioned, and it is probable that the improvement which seems to have taken place in some of them was only temporary. Death takes place either as a result of suffocation from the impaction of a bolus of food in the glottis, or else the slow accumulation of mucus in the lungs, which the patient can no longer cough up, gradually results in asphyxia. Life may be prolonged by the application of galvanism to the upper part of the cord and along the tract of the affected nerves, but nothing as yet known has any power to retard the progress of the disease in the nerve centres.

Uterine Hemorrhage.—In a late discussion on Uterine Hemorrhage, in the Obstetrical Society of Boston, Dr. Lyman (*Boston Med. and Surg. Journ.*) said that he had found sulphate of copper with "dragon's blood," an old New Haven preparation, efficient in cases of flowing, in which sulphate of copper alone produced no effect.

Amputation at the Knee-Joint.—Dr. Edward S. Wood, Cambridge, Mass. (*Boston Med. and Surg. Journ.*) reviews the history of this amputation, which is said to have been performed several times in the 17th and 18th centuries; but very little was known about it until revived by Velpeau, who, in 1829, published the records of 14 cases, 13 of which were successful. Since 1857, this operation has been adopted by Sir Wm. Fergusson, Messrs. Coulson, Pollock, and other noted surgeons in Great Britain, and has also been warmly advocated by Drs. Markoe, Brinton, and Smith, in our own country.

The advantages which amputation at the knee-joint has over that of the thigh are:—1. That it is vastly less dangerous to life, the mortality being much less. There is less shock and less hemorrhage. It is an axiom in surgery that the removal of every additional inch from a limb diminishes the patient's chance for recovery. 2. The better character of the resulting stump over that left after amputation of the thigh. 3. There is much less opportunity for pus to burrow up the thigh, because no muscular interspaces are exposed, there being no muscles divided except the heads of the gastrocnemius.

Amputation at the knee-joint may be done in almost all cases in which it was formerly customary to amputate the thigh in the lower third, provided that sufficient healthy skin can be obtained for an ample flap. Such cases are:—1. Chronic diseases or abscess of the knee-joint. 2. Compound comminuted fractures of the leg. 3. Gunshot fractures in the vicinity of, or involving, the knee. 4. Gangrene of the leg resulting from injury to the great vessels and nerves. 5. Chronic diseases of the bones. 6. Tumors of the leg.

In 16 cases of knee-joint amputation performed at the Massachusetts General Hospital, published by Dr. James R. Chadwick, the mortality was 43.75 per cent.; and if these 16 cases be added to the 164 cases which Dr. Brinton has collected, the mortality rate of 180 cases will be found to be 33⅓ per cent.

Emulsion of Vegetable Tar and Saponin.—M. Lucien Lebœuf (*Pharm. Journ. and Trans.*) recommends the formation of an emulsion of vegetable tar by means of saponin, as a means of obviating the difficulty met with in the administration of that medicament, arising from its slight solubility in water. By the addition of a little sugar the acridity of the tar is covered, and the mixture is rendered palatable. Saponin, being a neutral substance, exercises no chemical action upon the tar, while the quantity required to effect the emulsion (1 part in 500) is so small that M. Lebœuf considers its possible effect upon the system would be so slight as to make it unnecessary to take it into account. This new pharmaceutical preparation of tar, diluted more or less with water or glycerine, might be used with facility in lotions, injections, and gargles.

Liq. Magnesiæ Bisulphatis, for Cardialgia.—According to George Arnold, D.S.C. (*Pharm. Journ. and Trans.*) the bisulphites prevent butyric acid fermentation. The great drawback in their use is, that the chief bisulphite manufactures are those of lime, soda, and potash, these being objectionable, as they tend to injure the coats of the stomach. To remedy this failing he has prepared a bisulphite of magnesia; and magnesia being free from these objections, it may prove a valuable remedy, and is worth notice. The dose may be one table-spoonful, containing about nine grains of salt; its action is a mild aperient antiseptic, preventing butyric fermentation in the stomach. As far as he has been able to judge, the preparation has had the desired effect.

Glue Bandage in Fractures.—George Boss, M.D., house-surgeon, Montreal General Hospital (*Canada Med. Journal*), states that the use of the *glue bandage* as a primary setting for fractured limbs has been introduced into this hospital by Dr. McCallum, within the past three months, and, as far as he is aware, for the first time in this country. Notes of four cases of simple and compound fracture of the leg, so treated, are given. In the majority of cases, the patients were permitted to get up on crutches on the third day from the receipt of the accident. The bandage will never get out of order, and consequently never require re-adjustment. The advantages secured by its employment greatly counterbalance any slight trouble that it is necessary to take to insure its proper application at first.

Thoracic Aneurism.—At a meeting of the Medico-Chirurgical Society of Montreal, Dr. R. P. Howard (*Canada Med. Journ.*) referred to two cases of thoracic aneurism affecting the same portion of the aortic arch, which illustrated, to some extent, the two varieties of that disease, to which this portion of the aorta is especially liable, viz., lateral or sacculating and peripheric (or dilating) aneurism. Some of the most reliable points in his estimation of distinction in the diagnosis between these two forms of aortic aneurism were brought out.

In the *sacculated* variety, they are as follows: Distinctly localized pulsation perceptible to the eye and hand, over ascending portion of aortic arch. Inequality of the pupils and impairment of the voice—implying compression or stretching of certain nerves.

While, in the *dilated* variety, there is absence of pulsation—or if present, not so localized—but diffused and frequently more perceptible above the clavicles than over the arch; also absence of those signs indicating intra-thoracic pressure.

The Alkaloids of Opium.—O. Hesse (*Journ. Applied Chemistry*) has made a thorough examination of the alkaloids of opium, and finds that they are more numerous than has usually been supposed. Laudanin has the formula $C^{20}\ H^{25}\ NO^4$, and fuses at 166° C. Codamin fuses at 126° C. and its formula is $C^{19}\ H^{23}\ NO^5$. Narcotin, formula $C^{22}\ H^{23}\ NO^7$, fuses at 176° C. Papaverin, $C^{21}\ H^{21}\ NO^4$. Kryptopin, $C^{21}\ H^{23}\ NO^5$. Deuteropin, $C^{21}\ H^{21}\ NO^5$. Protopin, $C^{20}\ H^{19}\ NO^5$. Laudanosia, $C^{21}\ H^{27}\ NO^4$. Hydrocotarnin, $C^{12}\ H^5\ NO^3$. Some of these alkaloids have long been employed in medicine, and from nearly all of them secondary products can be prepared by means of acids.

Treatment of Anasarca.—J. Hale, M.D., Owensboro, Ky. (*Am. Practitioner*), has used the subjoined prescription in several obstinate cases of anasarca with complete success: R. Tr. digitalis, ℥j.; Potass. iodid., ʒiij.; Vin. colchici rad., ʒij.; Syr. sarsap. comp., ℥iij.; Aquæ puræ, ℥ij. M. S. Teaspoonful three or four times a day. The bowels to be freely moved every three or four days with pulv. jalapæ comp. He says that it is very valuable in other forms of dropsy.

Gelseminum Sempervirens.—In an article on "Therapeutical Uses of the Gelseminum Sempervirens," by Theodore N. Rafferty, M.D., Palestine, Ill. (*Am. Practitioner*), the accidental discovery of the medicinal action of the yellow jessamine is alluded to. He says that it is more than a sedative of the nervous system—as laid down by Professor Wood in his "Therapeutics and Pharmacology." It acts powerfully and directly upon the heart, and through it also affects respiration. When it is taken in poisonous doses it is the heart which first feels its influence, and where death has resulted it has been from failure of the heart's action. In his own experience its physiological action has been delightful, reminding him of the vivid descriptions of the effects of opium by De Quincey, in his "Confessions of an English Opium-Eater." Dr. Rafferty considers this remedy, which is so much advocated by Dr. Williams, of Baltimore, Md., in addition to its febrifuge properties, useful in neuralgia, hysteria, epilepsy, all of the phlegmasiæ, nervous headache, and some forms of rheumatism. In cases of protracted labor from rigidity of the os uteri it is probably as near a specific as any other article in the materia medica. The most eligible preparations of gelseminum are the fluid extract and the tincture; the ordinary dose of the former being five to thirty drops, and of the latter preparation ten drops, to a fluid drachm, though it should be given very cautiously. In cases of poisoning from gelseminum, the proper remedies are brandy, opiates, and quinine.

The editors of the *American Practitioner*, on account of the uncertainty of the strength of its preparations, advise practitioners to begin with the smallest quantity mentioned above, and to watch carefully its effects. It is a remedy which ought to elicit the attention of the profession, and be subjected to thorough investigation.

A Remedy for Scabies.—The following formula is extolled in cases of itch, by Dr. W. C. Moore, of Atlanta, Ga. (*Georgia Med. Companion*): Simple cerate, sulphur, āā ʒi.; Bicarb. sodæ, ʒss.; Ungt. Hydrarg. ʒj. M. S. Smear a small quantity over the affected parts every night. Wash well with soft soap and water before each application.

Excision of Clavicle for Osteo-Sarcoma.—Dr. N. Senn, of Elmore, Wisconsin (*Northwestern Med. and Surg. Journ.*), removed from a boy, 13 years old, the left clavicle for osteo-sarcoma. There was only a slight amount of constitutional disturbance following the severe operation, with almost unimpaired use of the arm after the removal of nearly the entire clavicle. The tumor was oblong and somewhat flat, measuring six inches in circumference, and three inches in length.

Aneurism by Anastomosis.—The successful treatment of a grave case of subcutaneous nævus, or aneurism by anastomosis, with astringent injections, is reported by Dr. H. Palmer, of Janesville, Wis. (*Northwestern Med. and Surg. Journ.*). The child, when 9 months old, had a tumor on the right side of the face, measuring six and seven-eighths inches from above downwards, five inches in breadth, and projecting three and one-fourth inches. During thirteen months, nineteen hypodermic injections of a saturated solution of the persulpate of iron were made, with no unpleasant results, except from the first deep injection into the central portion, which was followed by slight lobular pneumonia. A few small cicatrices, and some puckering of the skin, is the only evidence left of the diseased condition. Three excellent photographs accompany the paper.

THE MEDICAL RECORD.

A Semi-Monthly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

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New York, February 15, 1872.

THE PROPOSED LAW

FOR REGULATING

THE PRACTICE OF PHARMACY AND THE SALE OF POISONS

IN THE

CITY AND COUNTY OF NEW YORK.

On former occasions we have expressed our views of the present drug law. We did not hesitate to say that it would prove to be a failure in its practical workings. The more we see of its operations, the more are we convinced that our predictions will prove true. It was evidently framed more for the sake of making political capital and of creating offices, than for any possible good either to the people or to the legitimate practitioners of pharmacy. The Commissioners of Pharmacy, four in number, appointees of the Mayor, have absolute power to license any and every candidate that may present himself for examination, irrespective of any previous educational acquirements. For such services the Board, with the consent of the Mayor, can impose any fee they please upon the party desiring a license. The sum agreed upon is thirty dollars for proprietors of shops, and ten dollars for assistants. When it is known that according to law no pharmacist has a right to carry on his business without such a license, and that the license cannot be obtained without the fee, the injustice of the action is quite apparent. It cannot be denied that such a measure is dangerously aggressive, if not extortionate. Why have pharmacists to submit to such a heavy tax merely for the privilege of carrying on business in New York? Why has such a board the right to ignore the possession of qualifications on the part of the large majority of well-educated pharmacists in our midst, and compel them not only to undergo examination, but to pay a fee for such an examination? These Commissioners will not accept any diploma from the College of Pharmacy or other similar institution in lieu of such examination. This, on its face, is an insult to legitimate education, which is only to be explained by the ignorance and partisanship of the framers of the law. Instead of placing a premium upon education, as every commonwealth that cares for its prosperity must do, the law not only ignores educational advantages, but insists upon the penalty of a fee besides. In the majority of cases the penalty is inflicted upon a class of individuals who have committed no greater sin than educating themselves to a profession. It would appear, by the provisions of this law, that because they have educated themselves, they should be compelled to pay an arbitrary fee for an examination, no other fitness for their calling being admitted. We have in the present law the anomaly of a chartered institution of learning (for such is the College of Pharmacy), the diplomas of which will not be legally accepted as evidence of any education whatsoever. If this principle is to be accepted as a precedent by our law-makers, of what use will be our schools and colleges, and what will be the encouragement for our young men to educate themselves? If no allowance is to be made for educational advantages, what guarantee have we that another law may not be passed virtually declaring that the licenses of the present board are of no account, and that another examination must be had, and another fee paid? The supposition of such a provision in a prospective law is not more absurd than the actual demands in the present law.

It is needless to say here that the law met with a great deal of opposition. It was stigmatized by parties capable of judging of its merits, as an outrage upon common sense. The pharmaceutists objected to it on principle. They very properly, in numerous large meetings, protested against its injustice and its absurdity, but they were powerless to resist it. It was for the latter reason more than anything else, and the fear of still greater oppression, that so many presented themselves for examination. We admit that the status of pharmacy needs to be raised, that more of our young men should fit themselves to stand any examination which the State may impose; but this Board can never be the means to such an end. It simply sifts, in accordance with its own arbitrary standard, the qualified from the unqualified, and then its task is done. Neither the law nor its commissioners contemplate any provision for educational advantages. It is free to inflict penalties, its officers are only too ready and willing to do such duty; but where are the means to be used that shall render such penalties unnecessary? Such a result certainly cannot be attained by ignoring our colleges, and depriving examining boards of an educational function.

The desirability of a law to regulate the practice of pharmacy has been long ago acknowledged. In March, 1839, a law was enacted to protect the people against

poisoning, and "to regulate the dispensing of drugs." It contained many very sensible provisions, and during the period it was enforced accomplished its purpose. Since that time different articles have appeared on the statute books having the same end in view. The medical and pharmaceutical professions have taken a great deal of interest in the subject, and have done their best to secure the passage of a law that should at the same time protect the people and do justice to the skilled pharmaceutist. The most notable effort in this direction was by the Pharmaceutical Association at its meeting in Chicago, in 1869. An act was then framed which was unanimously adopted as a model. It was very carefully prepared, very thoughtfully considered, and very strenuously recommended for adoption by all the States. The present law, during its passage through the Legislature, was objected to by many of the leading pharmacists of the State, and the model act of the Pharmaceutical Association urged as a substitute; but, as has been seen, to no purpose.

When the opposition to the present law manifested itself among the druggists of our city, an Apothecaries' Union was formed, and, finding it impossible to contest the present law as such, it was determined to substitute a better. As the result of much discussion, the model act of the Pharmaceutical Association was adopted, and it was agreed to urge its passage. This bill, which we heartily indorse as a substitute for the present law, is now before the Legislature. We hope it may become a law: it is the only really sensible one of its kind that we have seen.

The proposed law transfers the duties and powers of the present Examining Board to the College of Pharmacy. This institution has done its part, despite great difficulties, in maintaining a high standard for pharmacy, and it is time that it should be not only recognized by law, but be empowered to decide, as an educational institution, upon the qualifications of candidates for license. It is proposed that the college elect from its professorial board, or from among its leading members, five gentlemen to constitute the examiners. There are four grades of registration, respectively as follow:—

I. Graduates of pharmacy, and licentiates in pharmacy, such as have had four years' experience in dispensing, or who have passed an examination before the present board, the Board of Pharmacy, or foreign pharmacists with satisfactory credentials.

II. Practising pharmacists, which are to be such persons only as have kept and continue to keep stores for compounding prescriptions.

III. Practising assistant pharmacists, such persons, over eighteen years of age, who have had two years' experience in compounding prescriptions. Persons less than eighteen years of age, or less than four years' experience, are considered junior assistants or apprentices, and are to be under the immediate supervision of a registered pharmacist, until they become graduates or licentiates in pharmacy. The Secretary of the Board is to keep a book of registration, in which is to be entered, under the supervision of the Board, the name and place of business of all persons coming under the provisions of this act. The fee for this registration of proprietors is two dollars, and assistants one dollar. This registration is to be renewed every January, and, after a certain date, every pharmacist is made responsible for the quality of all drugs, chemicals, and medicines he sells or dispenses, with the exception of those sold in the original packages of the manufacturer. It is considered a misdemeanor to adulterate any drugs, the penalty of which is a sum not exceeding one hundred dollars. It is also required that the poisonous minerals and drugs are to be duly labelled, and that no poisons are to be sold without an entry of the name of the purchaser, etc. All persons applying for examination shall pay to the secretary a fee of five dollars, and on passing is furnished with a certificate without extra charge. Any attempt to procure registration by false representations is punished, on conviction, by a fine not exceeding five hundred dollars.

The expenses to the pharmacists under this act would be merely nominal, and not at all burdensome, while the expenses to the city would be nothing. On the other hand, the present Commission, if not dispensed with, will, by their own showing, cost the city seventeen thousand dollars! All that the College of Pharmacy asks, in the passage of this law, is its legal recognition as an educational body, and any other sums that may be in excess of the actual running expenses of its Board.

We reiterate the hope that this proposed act will become a law, and we believe that the medical profession at large will be willing to approve of it in every particular. It should not lose any opportunity for making its influence felt in the right direction. It is a fortunate circumstance that at the time when such an important measure is before the Legislature, the chairmen of the respective Committees of Health in the Assembly and Senate are gentlemen who are known to be identified with the true interests of everything connected with progressive and legitimate medicine. Dr. Loughran of Kingston, the chairman of the Committee of the Assembly, was a practising physician up to the time of his election, and is in every way capable of representing his profession, and the Hon. Augustus Weismann, of this city, the Chairman of the Committee of the Senate, has a reputation as a practical pharmacist second to none other of his craft. No one can be better qualified to decide upon the true merits of the bill, and, judging from the stand he has already taken, there is no fear of his being coaxed into any damaging compromise.

The Doctor, in its issue of January 1, being desirous of ascertaining the number of recognized medical colleges in this city and vicinity, we gladly present them, with the following list:—The College of Physi-

cians and Surgeons, chartered March 12, 1807; University of City of New York, Medical Department, organized 1840; Bellevue Hospital Medical College, chartered March, 1861; Long Island College Hospital, Brooklyn, established 1859, and the Woman's Medical College of the New York Infirmary, organized November, 1868. These are all the strictly regular medical institutions that are empowered to grant diplomas for practising medicine and surgery. All are in successful operation, and diplomas from any one are legally accepted as evidence of professional qualification. We have, besides, a College of Pharmacy, organized 1829, and a College of Dentistry, chartered March, 1865; and last, but not perhaps least, we rejoice in the possession of a regular College of Veterinary Surgeons, the professorial chairs of which are held by regularly educated medical men, the majority of whom are also veterinary surgeons.

It would seem that the *National Medical Journal* is likely to come to grief. Drs. S. C. Busey and Wm. Lee have reliquished their connection with the journal as its editors, in consequence of an unwarranted interference with the functions of their office by the publishers. The latter insisted upon the publication of an article which met with the disapproval of the said editors. The course taken by the editors is a very proper one, as vindicating a principle, and will be indorsed by the profession at large. The publishers presume to issue the forthcoming number on their own responsibility, evidently determined to browbeat their subscribers into an acknowledgment that such a course is necessary, and that they are the proper judges as to what kind of articles should appear. It is, perhaps, unnecessary to state that any periodical managed in such a spirit does not deserve the patronage of a single subscriber.

The meeting of the State Society was an unusually large one, and many matters of interest were brought to the notice of the profession. Our report, however, is a full one, and gives all the particulars.

Dr. C. R. Agnew, of this city, was elected President, and every one is satisfied.

We take the opportunity, in closing the present volume, to express our obligations to such members of our staff as have given us their assistance. Dr. John Winslow has kept us supplied with his admirable reports of the County Society, and Medical Library and Journal Association; Dr. Bradford S. Thompson has faithfully and punctually furnished us with the reports of the New York Academy of Medicine, besides giving us his valuable aid in the department of Progress in Medical Science; Dr. James B. Hunter, as is known to most of our readers, has retired, to assume the editorial control of the *New York Medical Journal*. We have been sorry to lose him, but are made glad to know that he brings to his new sphere of usefulness all the qualifications necessary to discharge his responsibilities. What we have lost in one direction, we have, however, gained in another, in the person of Dr. F. A. Castle, who has thus far, in the departments of Progress of Medical Science and of Society Reports, shown himself worthy of every confidence as to ability and discretion. The present report of the Medical Society of the State of New York has been prepared by him, and, as a report, ranks with those of Dr. Winslow, which is saying all we can for its excellence. Dr. Edward S. Bunker, of Brooklyn, has supplied us with the reports of one or two lectures, for which he will please accept our thanks. With the continued aid of these gentlemen, and others of our friends who have so willingly assisted us with their contributions, we hope to be enabled to give satisfaction to our readers.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Dec. 15, 1871.

Dr. A. L. Loomis, President, in the Chair.

EXTENSIVE DISEASE OF FEMUR AND ACETABULUM.—COINCIDENCE OF CHEESY DEPOSITS IN LUNGS, ETC.

Dr. Mason presented a specimen of extensive disease of acetabulum and femur, removed from a man aged 40, a patient of Charity Hospital. He was in the medical ward, and the attention of Dr. Mason was directed to him by his manner of walking. His right lower extremity assumed the position of a dislocation upon the dorsum ilii. He was able to walk about perfectly well, and Dr. M. asked him the history of his trouble. He replied that he had received an injury of the hip some time before, but had never been troubled in walking. A careful examination of the hip was deferred, and it was soon after ascertained that the patient had died of phthisis. Dr. M. happened to be in the dead-house when this man lay upon the table, and he suggested to Dr. Drake the propriety of examining the hip.

The tissues about the joint were very much swollen, but there were no signs of any sinuses in the neighborhood. In cutting down upon the glutæ muscles a large sac containing cheesy material was opened. This material was of a putty-like consistency. The capsule of the hip joint was very much thickened. The acetabulum was completely eroded, filled with cheesy material, and its brim was perforated in two places, one opening being large enough to admit the end of the little finger. The inner surface of the tuberosity of the ischium showed marks of extensive disease, as did also the inner surface of the ilium. In both situations cheesy matter was deposited. The head, neck, and trochanters of the femur were completely eroded and hollowed out.

The specimen was interesting in connection with the amount of disease that could be tolerated without inconvenience; and secondly, in answer to the question whether we ever find cheesy deposit in the lung associated with disease of the hip. The disease of the hip antedated phthisis by many years.

Dr. Finnell asked if a large number of patients did not get well without any evidence of phthisis afterwards.

Dr. Mason remarked that a great many cases recovered before they reached the stage of cheesy degeneration.

Dr. Peters related a case of spinal disease, attended eventually with psoas abscess, in which, although the disease has existed for many years, yet there were no signs as yet of any trouble in the lung.

Dr. Mason presented a second specimen also of diseased bone, illustrating one of the peculiar conditions which is described as resulting from extensive inflammation and long-continued suppuration of the spongy tissues. The patient from whom the specimens were removed had been operated on by Dr. Wood for caries, and had died within a week or two afterwards of pyæmia. The bones exhibited were the os calcis, the two internal cuneiform, and one phalanx. These, on examination, were found to have lost their salts, and could be compressed between the thumb and finger very much like pieces of soft rubber.

MAMMARY TUMOR IN MALE.

Dr. Hart presented a suspicious-looking tumor, removed two weeks before from the left mammary region of a lad aged seventeen. It had been growing three months, was the size of half a goose-egg, and was unattended with pain. He desired to be informed of its character by the committee on microscopy. The specimen was accordingly referred.

PERIPHERAL PLACENTITIS.

Dr. Rogers presented specimens with the following history:—A lady, supposed to be well on in the third month of pregnancy, discovered a slight flow, which was attended with a little uterine movement and pain in the back. She went to bed, and the symptoms subsided. Very soon after she sustained a severe fall upon the floor, and her symptoms were renewed, with, however, the discharge of more blood, and with more uterine contraction. Quiet and the recumbent position gave her relief from the pains, but not until a large quantity of blood had been discharged. Subsequent to this she suffered twice or three times a week a little discharge of bloody fluid, each of which was accompanied with more or less uterine pain. This condition lasted for three weeks, when one night, after feeling remarkably well, and after having noticed that the abdomen had become suddenly very much enlarged, she was seized again with uterine pains, accompanied with the discharge of a large amount of bloody serum—so large in quantity as to saturate eight or ten good-sized napkins. The size of the abdomen was much diminished, and the pain soon after ceased. Within a week after she had another similar discharge, and so it went on for a period of about a month after this, there being a large sanious discharge from twice to three times a week. Mixed with this fluid was more or less of a shreddy material, which under the microscope proved to be of an inflammatory character. There never was found in any of the discharges any traces of chorion tissue. After the fourth month there were symptoms, which were regarded as very unequivocal, of the presence of a living fœtus in the womb. About two or three weeks subsequently, a consultation with a distinguished obstetrician of the city was solicited, and the diagnosis of degenerated ovum (probably hydatid) was made. Dr. R. was inclined to believe it one of those cases of solid uterine moles. Finally, conjecture was at an end when the woman fell in labor and gave birth to a five-months child. The placenta was unusually large, and its entire border was blackened and fringed with this shreddy material. It seemed as if the whole circumference of the organ had been the seat of active inflammatory changes. In one portion there was a shreddy condition, showing considerable disintegration. From the conditions presented, Dr. R. concluded that the specimen was one of peripheral placentitis. He recited the case to Dr. Noeggerath, and in reply that gentleman stated that the history was exactly one of peripheral placentitis, and further remarked that Dr. Braun, of Vienna, was the only one who had written upon the subject.

HOB-NAILED PLACENTA.

Dr. Rogers next exhibited a hob-nailed placenta, the result of a purely fibrinous inflammation, and lastly he presented the uterine contents of a woman who had advanced, as was supposed, to the third month of pregnancy. The specimen had already been presented to the Society as an ovum without a fœtus. On examination, no sign of the chorion membrane could be discovered, and the mass was simply characteristic of dysmenorrhœal membrane.

PERIOSTEAL CANCER.

He lastly exhibited, on behalf of Dr. Fred'k Elliott, a thumb removed from a man aged 50. Six years ago he jammed the point of the thumb between two solid bodies. He did not suffer much inconvenience from it until a year afterwards, when a fungous growth appeared under the end of the nail. This growth soon assumed large proportions and became malignant. Dr. E. diagnosticated malignant disease, and urged its removal. The patient did not agree with this proposition, and drifted into the hands of a cancer-doctor, who applied various caustics and succeeded in reducing the mass to a very small fungus. The disease then took a fresh start, and in the course of a few months grew to an enormous size. The patient becoming discouraged, finally returned, and the thumb was removed at the metacarpo-phalangeal articulation. The specimen was sawn through longitudinally, and showed the last phalanx to be destroyed by cancerous material, and it further showed the origin of the disease to be in the periosteum. In connection with this case he exhibited colored pictures of another thumb of similar character, which he had removed two years ago.

Dr. Jacobi remarked, in regard to the first case of Dr. Rogers, that before Dr. Braun, of Vienna, wrote the monograph referred to, there were others who described hydrametra—a condition of things identical in many, if not in all respects, with that presented by Dr. Rogers. He also remarked that in the case of an ovum without a fœtus, it was not fair to decide that pregnancy had not existed; inasmuch as, in the first place, placental tufts did not ordinarily form before the sixth week; and in the second place, a fœtus might have existed, its development might have been arrested, the fœtus absorbed, and also the placental tufts, even after they had appeared.

MELANOTIC CANCER OF THE EYE.

Dr. Noyes exhibited two eyes which had been the seats of melanotic cancer. The first eye was removed by operation last April, from a man sixty-two years of age. The sight of that eye was lost without any assignable cause; after the eye had been destroyed it became very painful, although there was no sign of trouble in the other eye. The intense pain was the only reason for the removal of the organ. Externally the organ presented no other abnormal appearance than complete opacity of the cornea and the entire impossibility of discerning anything in its interior. The cornea was rather flatter than usual. After the optic nerve had been divided, a growth was noticed upon its exterior, and also another tumor within the orbit. This latter was also extirpated. The man did not make a very rapid recovery, it being ten days before he was well.

He continued well until two months ago, when the stump became very painful. This was removed by being cut close to the optic nerve, and all the stroma containing any diseased deposits was likewise excised.

On examination, after removal, the interior of the eyeball was filled with a grayish-black mass, which took the place of all the internal structures save the crystalline capsule of the lens. It was also discovered that the growth, starting from the choroid, had found its way through the sclerotic, and had thence insinuated itself alongside the optic nerve underneath its sheath.

The second eye was removed on account of a glaucomatous tumor; but in this instance the growth (melanosis) was entirely intra-ocular, the optic nerve not being involved.

TUBERCULOUS ULCERATION OF LARYNX.

Dr. Peters presented a specimen of tuberculous ulceration of the larynx, occurring in the person of a man aged forty-five years. He suffered from trouble about the throat for the past eight years, during which time he resided in California, and soon after lost his voice and had difficulty in swallowing. Dr. Snelling made several laryngoscopic examinations, and confirmed the diagnosis. Dr. Sands had charge of him during the absence of Dr. Peters from town. When Dr. P. returned he found the patient with a hacking cough of recent origin, but his chief complaints referred to his aphonia and his dysphagia. During the six weeks previous to death the phthisis made rapid progress.

At the autopsy the epiglottis was found sound, but there was considerable ulceration behind it, and the vocal cords were entirely destroyed. There was no evidence of mechanical obstruction to larynx or pharynx. The case was of interest in connection with the fact that the throat trouble existed for many years before any disease of the lung showed itself.

Dr. Loomis stated that within the last two years he had under observation three cases in which symptoms of chronic laryngitis were present long before he could detect any evidence of changes in the lung. In all of these, the immediate development of pulmonary signs was preceded by an attack of an acute catarrh. He had been in the habit of regarding such cases as follicular inflammations of the throat, which had, however, no direct connection with pulmonary trouble, save as showing a tendency of the patient in that direction.

EMPYEMA.

Dr. Loomis presented a specimen of empyema with the following history:—

Reimer De Vire, aged 25, born in Hanover, Ger.; occupation, seaman; admitted to Bellevue Hospital, Nov. 6, 1871.

Father and mother dead—latter of fever. Rest of family history good. Patient has been a moderate drinker. Had gonorrhœa four years ago, but only lasted two weeks. Was never laid up till present sickness, which began on the 1st instant, after four days of cold, with pain in the left side, infra-axillary region, "sticking" increased by deep inspiration, coughing, or movements of his body; breathing consequently became short; experienced thirst, "drinking all the time." These symptoms continued up to time of admission; complains of dryness of mouth and throat; loss of appetite; the pain mentioned above; constipated bowels, not moved for ten days; pain in small of back; some difficulty in passing water; palpitation of heart; P. 116, R. 48, T. 101½.

Examination.—Chest—Deficient expansion of left side; vocal fremitus weak on same side behind, above angle of scapula, and absent below that point; absent also in front below the nipple, and weak above. Fremitus present on right side. Dulness begins at sixth dorsal vertebra on left side, but most marked below the eighth; dulness in left infra-axillary region; respiratory murmur absent below sixth dorsal vertebra, left side; absent above; absent in axillary region of the same side and below the nipple in front. Bronchophony with ægophonic quality on left side below sixth dorsal vertebra, and in the infra-axillary region; less manifest in front below the nipple.

Nov. 8th.—Dulness behind begins about the middle of the scapular region, vocal fremitus feeble same place; exaggerated respiration in left supra-scapular region; bronchial breathing below the middle of the scapula on the left side; ægophony just below the middle of the scapula on same side; bronchophony lower down. *Nov. 9th.*—Bowels moved by every dose of cinchonia; stools watery. *Nov. 11th.*—Better this morning; breathing much better.

Examination.—Fremitus and percussion unchanged. Respiratory murmur and voice sound, same as at last examination. Pulse being irregular. P.M.—Has not slept for some nights.

Nov. 14th.—Bronchial breathing and rales redux over lower lobe of left lung, down to two inches below the scapula; below that nothing is heard. On the 12th an abscess situated in the superficial muscles of infra-scapular and inter-scapular regions was opened, and about ℥ iii. of pus evacuated; washed out with carbolic acid and treated by compression and daily washing with carbolic acid. Last night at 8 o'clock noticed a swelling below the ear, between it and the angle of the intermaxillary bone; right side had dribbling of urine during the night. Water drawn off. *Nov. 15th.*—Had nose-bleed last night. Sudamina and roseola on abdomen; P. 110, R. 44, T. 102; considerable efflorescence over upper part of the chest. *Nov. 16th*, P.M.—P. 114, R. 46, T. 102½. *Nov. 17th.*—Slept well last night, after taking two spoonfuls of morphine; bowels not having been moved for six days, three Ward pills were ordered.

Chest.—Discharge from the abscess nearly ceased, and the edges of the incision have nearly come together. Same signs as mentioned in last examination, except that bronch. resp. is less distinct. P.M.—P. 118, irreg. and intermit., R. 56, T. 102½.

Nov. 18th, A.M.—P. 108, irreg. and intermit., R. 36, T. 100⅛. P.M.—P. 102, reg., R. 36, T. 102½. Abscess has been poulticed for several days. This evening there was a sense of fluctuation. A free incision was made, but nothing but blood escaped.

Nov. 19th, A.M.—P. 120, R. 52, T. 102½.
" " P.M. " 118, " 38, " 103½.
Has had a rigor, and is now covered with profuse perspiration. *Nov. 20th*, A.M.—P. 116, R. 60, T. 103⅜.

Examination of Chest.—Dulness in left supra-scapular and upper part of scapular regions; bronchial breathing in same; same signs in front on the left side, to the nipple; subcrep. râles lower portion right side posteriorly; flatness below angle of left scapular; voice sounds diminished.

Nov. 21st, A.M.—P. 110, reg., R. 36, T. 103½. Has been sweating; flatness over the left chest in front; vesiculo-tympanitic on the right. Dulness of left side posteriorly to angle of scapula, and flat below, and corresponding murmur and voice sounds above angle of scapula; below this loss of fremitus and respiratory murmur; vocal resonance very feeble. The parotid tumor has almost entirely subsided. *Heart* is displaced

to the right, a pulsation being very apparent on that side in the fifth intercostal space.

Abscess in the back, which was opened nine days ago, was probed this morning and found to extend from two to three and a half inches in every direction from the point of incision; about two drachms of thick greenish pus was evacuated. Pus was withdrawn from the *left pleural* cavity by hypodermic syringe. P.M.—P. 110, R. 46, T., no therm. P.M., 6.30.—Trocar was introduced in the seventh left intercostal space, about two and a half inches outside of the nipple, and about fifty-three ounces of grayish-colored pus was evacuated. After the operation the heart impulse could be felt in the fourth left intercostal space. Flatness in front in the infra-clavicular and mammary regions, changed to vesiculo-tympanitic. Bronchial respiration was heard below the angle of the scapula.

Nov. 22d, A.M.—P. 106, R. 40, T. 100¾. Capillary circulation poor in front; impulse of heart seen to right of sternum; felt also in epigastrium; cardiac dulness one inch to right of sternum, recumbent position—vocal fremitus both sides front; flatness below third rib front, left side; tympanitic percussion above that; below third rib voice sounds feeble, above bronchial in character; respiratory murmur feeble below third rib; above respiration bronchial tympanitic percussion left supra-scap. flatness below; broncho-vesicular respiration left supra-scapular, feeble respiration, with bronchial expiration, and voice sounds bronchial in character below spine of scapula; friction sound in right axillary region. Paracentesis thoracis performed at ten o'clock A.M., and thirty-three ounces of pus, having consistence of milk, and color of pea-soup, were evacuated. P. 118, R. 32, T. 102.5. *Nov. 24th*, A.M.—P. 110, R. 36, T. 99¼. Succussion, bronchial respiration hard in lower part of left inter-scapular region, metallic tinkle. P.M.—P. 122, R. 40, T. 101¼. *Nov. 25th*, A.M.—P. 140, R. 32, T. 99¾. *Nov. 25th*, P.M. P. 136, R. 36, T. 100¼. Abscess of back was laid open this A.M.; very scanty discharge and a small amount of fibrine. No communication with the pleural cavity could be found. *Dec. 2d*.—Fluid in chest as high as third rib. *Dec. 3d*.—Tapped, and 46 ounces purulent serum drawn from him. *Dec. 4th*, A.M.—P. 126, R. 38, T. 100¼. *Dec. 4th*, P.M.—P. 140, R. 42, irreg. and intermit. *Dec. 5th*, P.M.—P. 126, R. 50, T. 100¼. *Dec. 6th*.—Since last night all the food he has taken has regurgitated through his nose, and the orderly says through his ears; suffering from dyspnœa; has tracted râles; feet cold; pulse decrotic. Urine examined, sp. grav. 1022; Acid,— ; Albumen, traces.

Average Pulse,	28 days	A.M.	112
" "	30 "	P.M.	117
" Resp.	28 "	A.M.	37
" "	30 "	P.M.	42
" Temp.	28 "	A.M.	100¾
" "	28 "	P.M.	101⅕

Died Dec. 6, 1871, at 1 P.M.

Autopsy, Dec. 7th.—Brain not examined. Heart normal. Lungs—Left pleural cavity contained air, and was nearly full of purulent serum; large adhesions between lung and chest-wall; lung compressed, at the apex a small cavity; right lung infarctions in lower lobe; liver and kidneys normal. An abscess beneath the skin of the back, opposite the fourth rib, which does not communicate with pleural cavity.

Stated Meeting, December 28, 1871.

DR. A. L. LOOMIS, President, in the Chair.

The Committee on Microscopy reported the tumor presented at the last meeting by Dr. Hart to be fibro-cellular.

NECROSIS OF JAW — COMPLETE RESTORATION OF BONY PARTS.

DR. SAYRE presented several pieces of the jaw-bone removed by operation from a man who had come to his office four months ago with an enormous swelling of the right side of the face and neck. He was salivated at the time for what was supposed by another physician to be syphilitic disease of the cervical glands. On examination, however, a fracture of the lower jaw was discovered, which accident the patient referred to the extraction of a tooth some time before. There was extensive periostitis and necrosis. The patient was advised to stop medication and give nature a chance to throw out enough new bone to warrant the removal of the old. The idea was to allow the necrosed bone to act as a splint until such time as the new bone was formed with sufficient solidity to preserve the contour of the face. Three weeks ago the operation for removal was performed by an incision inside the mouth and along the internal aspect of jaw. The angle, ramus, and several portions of the body of the bone were removed. The operation was performed at the clinic, and the patient had such good use of the jaw that he was able to eat his dinner the same day and bring his upper and lower teeth in natural approximation. Since that time the patient made a rapid recovery, and the swelling of the face, at the time he was presented to the Society, was rapidly disappearing.

EXSECTION OF OS BRACHII.

DR. SAYRE also exhibited five inches of the upper portion of the os brachii removed by operation from a German, aged 37, who had suffered from a swelling of the right shoulder for three years, the result, as was believed, of an injury to the part by being thrown from a wagon. The patient could not tell whether the bone had been broken or not. The arm was twice the size of its fellow. Just below the acromion process was an opening in which the finger could readily be inserted, and from which a large quantity of pus was constantly discharging. About three inches below the acromion process, and by the side of the biceps, was another opening, and still another about an inch and a half below the insertion of the deltoid. Through all of these, dead bone could be detected. It was deemed advisable to remove the dead bone, and for this purpose an incision was commenced from the lower opening, and carried longitudinally on the external aspect of the bone, as far as the top of the shoulder. The bone was then carefully enucleated, pried up, and sawed off. The glenoid cavity had been entirely destroyed. The new bone, which had been thrown out on the internal aspect of the arm, was so firm that it was unnecessary to apply any especial support, and the wound was simply dressed with oakum. Since the operation the patient has steadily improved.

DR. HART referred to a case of gunshot wound of lower jaw, from which he removed, six months after the accident, three inches of the external plate of the bone, together with several fragments. There was sufficient new bone at the time to keep the jaw in shape.

HYSTERIA AND EROTOMANIA—VOLUNTARY INTRODUCTION OF SEWING-NEEDLES INTO THE KNEE-JOINT—AMPUTATION—RECOVERY.

DR. H. D. HEWIT presented a number of needles removed from the knee-joint of a patient, with the following history:—

Julia Leary, 16 years, an inmate of the House of the

Good Shepherd, came under my care in February of the present year.

She presented evidences of slight synovitis, which she ascribed to an accidental fall a short time previously. The right knee was affected, and was slightly swollen, tender, and at times excessively painful. Pain was sometimes present, and at others, although bitterly complained of, was discovered by close watching to be absent or slight.

The usual treatment was adopted: rest in bed, counter-irritation, tonics, and extension and counter-extension by means of Sayre's splint. Morphine was used hypodermically when the pain was severe. Slight hectic existed, but appetite was not impaired, and the patient preserved her color, spirits, and flesh in a remarkable manner.

My attention was early directed to the hysterical and erotic condition of the patient, and my suspicions were aroused by the frequent direct lies in which I detected her. She manifested a strong desire to be sent to hospital, and frequently complained of the inutility of the means adopted for her relief. In March, paralysis, anæsthesia, and diminished temperature were suddenly developed in the affected leg and foot, with swelling of the leg and foot, and lividity of hue. Occasional remissions and exacerbations of symptoms were likewise observed. Movement and pressure were excessively painful.

Simultaneously with the occurrence of paralysis small tumors appeared in the ham, which I ascribed to neuromata of the popliteal nerves. Soon afterwards similar tumors appeared under the skin, over the other portions of the joint.

The case gradually progressed unfavorably till June, when I sent her to Charity Hospital, in order to obtain the advice of my colleagues with reference to further treatment or amputation. Several consultations were called. All the surgeons who saw her recognized the decided hysterical complication, and hesitated in advising mutilation. During the summer the patient remained in a very comfortable condition. She did not lose flesh or color, nor did the joint present the decided characteristics of ulceration of cartilage, and it gave no evidence of containing pus or any abnormal amount of fluid. The small tumors beneath the skin apparently increased in number, and were extremely sensitive to pressure. In October I became satisfied that further treatment was useless, and determined upon amputation at the knee-joint, with the intention of making it subsequently a thigh amputation, if the condition of the knee when opened indicated the necessity for the latter procedure. Drs. Mason and Watts gave their sanction, and accordingly, with the consent of the patient, I amputated at the knee-joint on the 29th of October.

The amputation was performed in a circular manner, with two side perpendicular incisions to facilitate separation of the flaps. The moment the dissolution of the flaps was commenced the edge of the scalpel encountered hard substances, which speedily dulled several knives in succession. These substances proved to be sewing-needles, lying imbedded in the hard and soft tissues of the joint in every possible direction. Forty-seven were extracted in the course of the operation, and several others were lost. The recovery has been satisfactory, and the stump is an excellent one in every respect. It is proper to remark that the inflammation developed within the joint was very slight. Softening at the osteo-cartilaginous border was commencing, precisely as it is observed in a more acute and rapid manner after gunshot wounds of joints.

The mental condition of this patient was feeble and depraved, without any very salient characteristics. Her motive in inserting the needles was to create sufficient disease to warrant her being sent to hospital, with the expectation of being cured and eloping, in order to resume a life of prostitution.

As is usual in hysterical cases, she was urgent for amputation. This fact was one motive for my long delay and hesitation.

She steadily denies having voluntarily inserted the needles, and persists in explaining their presence by saying she fell upon a pin-cushion. It had been remarked at the House of the Good Shepherd, before her removal, that she wasted and lost a great many needles, and she was notorious among her companions for continually begging for needles.

OBSCURE CASE OF ANEURISM.—A QUESTION ON DIAGNOSIS.

Dr. Loomis presented a specimen taken from a German mechanic, thirty-one years of age, who was admitted into Bellevue Hospital the 7th of December. He stated that he had always been a healthy man, with the exception of an attack of measles ten years before, and an attack of intermittent which laid him up for three or four weeks. He was of temperate habits, and gave no history of syphilis, although he said that he had had gonorrhœa. He also stated that about three months before his admission he had noticed a slight hacking cough, unattended with expectoration; but that he had been able to continue his daily labor, which was that of a book-binder, until ten days before admission. At that time, after working all day in a damp cellar, he was seized with a chill at night, followed by intense pain in the left side. The following morning he had considerable febrile disturbance and nausea, was compelled to keep his bed, the pain in the side increasing in severity. He went on getting a little worse daily, the cough being accompanied by a more profuse and purulent expectoration, until five days before his admission, when he noticed some bloody material in his sputa—whether it was streaked or pneumonic in character could not be ascertained. After this his dyspnœa increased to such a degree that he was unable to lie down. When admitted to hospital he had a constant cough, accompanied with a muco-purulent expectoration. There were no streaks, nor any other sign of blood in the sputa at that time. His temperature was then 108°, his respiration 36. His cough was of an irritating and teasing character. There was a noticeable loss of motion of left side of the chest, while the right side expanded more than normal, and the left measured half an inch smaller than the right. On palpation there was entire loss of vocal fremitus on left side over the angle of the scapula posteriorly and laterally, but anteriorly in the infra-clavicular space the fremitus was increased; while on percussion there was dulness over the whole upper portion of that chest anteriorly and posteriorly. There was also dullness complete from below the scapula down to the bottom of the lung. On auscultation bronchial respiration was distinctly audible over the upper portion of the left lung anteriorly and posteriorly, while below the scapula there was entire loss of respiratory sound. Taken together, there were the physical signs of pleuro-pneumonia. There was very little change in the general condition of the patient for the ten days following, the temperature averaging 102° and the pulse 108. During this time there was occasionally pneumonic sputa, but his dyspnœa gradually grew less, so that he was enabled to lie down. After this he seemed to improve very rapidly, and he felt himself so far on towards recovery that he asked to go out. Yet the physical signs did not change from the time of his admission until his death; except, per-

haps, that the amount of what was believed to be fluid in the pleural cavity increased. The patient was not, however, discharged, but was allowed to go about the ward. His appetite was good; his fever left him except at night, and even then there was but a little rise in temperature, and the pulse averaged 94. On the 18th, eleven days after admission, the house physician was summoned to the bedside of the patient at midnight, and found him gasping for breath, and blood streaming from his mouth and nostrils. There was a pool of blood upon the floor which, by actual weight, amounted to two and a half pounds. Of course this suggested immediately the idea of aneurism.

At the autopsy this suspicion was confirmed by the existence of an aneurism the size of an English walnut, given off from the descending portion of the arch of the aorta just before it becomes the thoracic. The opening into the aneurism was large enough to admit the first and second fingers. The sac pressed upon the left bronchus, made an opening into it, thus causing the sudden death of the patient. But the interesting point is, that the tumor so pressed upon this bronchus as to entirely obliterate its calibre, thus accounting for the physical signs already enumerated. The lung was found to be the seat of pneumonia in the third stage, the lower lobe being farthest advanced. The bronchial tubes were filled with pus, the obstruction preventing its expectoration. At the upper portion of the bronchial tubes this pus was mixed with blood which had escaped from the aneurism. The artery was atheromatous from its origin past the point where the sac had been developed. There was no serous effusion of any consequence in the pleural cavity.

As far as this case went, it was in his experience unique. In searching over the dead-house records of Bellevue Hospital, he has found but three cases that were similar, but in none of these were the physical signs detailed.

The interest of the case centred in the diagnosis. The history was one of pneumonia for ten days, no clue whatever being given to an aneurism until the fatal hemorrhage occurred. If there had been a distinct hemorrhage before the symptoms of pneumonia showed themselves, the existence of aneurism could be at once suspected. Dr. L. did not think he could have diagnosticated an aneurism of that size if auscultation had been practised with that view. There was, however, one point in the diagnosis which could not explain, on the supposition of the existence of effusion in left side, and that was the non-displacement of the heart.

Dr. Sands referred to a case that occurred many years ago at Bellevue, in which an aneurism was developed upon the transverse part of the arch. In that instance bronchitis was developed as the result of pressure, but, as far as he could recollect, no murmur was detected. Death occurred from rupture of the sac, simultaneously in the trachea and œsophagus. The amount of blood lost was forty-four ounces. He also referred to the case of the late Mr. Liston, whose attention was first directed to the existence of an aneurism in himself by the occurrence of a hemorrhage coexistent with a husky cough.

Beet-Root Sugar.—A large number of manufactories of beet-root sugar are found scattered over Europe, Prussia counting about 300, Austria 150, Russia more than 300, France more than 400, and Belgium 100. The quantity of this sugar produced in 1869, in Belgium alone, being estimated by Wagner at 500,000 centenaurs.

Correspondence.

BROMIDE OF POTASSIUM PRODUCING BOILS.

To the Editor of the Medical Record.

Sir—I observe in a recent number of the Record a statement from Dr. Julius Levy, that in giving drachm doses of the bromide of potash three times daily, continued for months, a series of boils will be apt to be produced. I have at the present time a patient æt. 51, who not three weeks since was literally covered with small boils (on the eyelids, limbs, and various parts of the body), which I am positive resulted from the use of the bromide, and since its discontinuance the skin has resumed almost its normal condition. My patient was taking at the time of the eruption about 20 grains of the potash salt, and which had been used for a period of about six or eight weeks. The patient was at the same time using full doses of the elixir calisaya, iron, and bismuth.

This case illustrates that the bromide may produce an eruption of boils with a much smaller dose in a shorter time than your author states, and also that the calisaya is not in all cases a preventive.

Very truly yours,

C. W. Frisbie, M.D.

East Springfield, N. Y.

A REMEDY FOR VARIOLA.

To the Editor of the Medical Record.

Sir—As the "small-pox" prevails extensively in your city, I avail myself of the columns of your journal, with your permission, to suggest a very simple but scientific remedy which promises great results in that loathsome disease. The idea originated with Dr. Rowand, one of the surgeons of the Marine and Emigrant Hospital of this city, whom I have the pleasure of ranking among my friends.

The *philosophia corporis rivi* indicates the accuracy and soundness of his pathological and therapeutical deductions. Happily the opportunities of practically testing the virtues of the remedy here have been few, and confined hitherto to a solitary case, in which, however, it acted like a charm, literally arresting the process of pustular development and consequent desquamation, and suspending the disease, leaving no trace behind, nor a solitary unfavorable symptom, any more than if the patient had not been affected by small-pox. Accepting the same pathological deductions in "scarlatina" and "variola," Dr. Rowand naturally suggests the same *ratio medendi* in both diseases; and when we consider the morbid relations of the kidneys and skin in both cases, I am not, I apprehend, too sanguine in predicting equally favorable results in both.

Rub up three drops of balsam of copaiba with a little albumen, or mucilage and syrup, and administer three times a day. The simplicity of the remedy, and the facility of obtaining it, are strong recommendations, and I hope that its virtues will be fairly tested in your city hospitals, where ample opportunities present themselves; and that you will be good enough to give the results to your readers.

I have the honor to be, Sir, yours very truly,

W. Marsden, M.A., M.D., etc.

Place d'Armes, Quebec, 19th January, 1872.

EXTRACT PINUS CANADENSIS AND SULPHATE OF BEBERIA IN UTERINE DISEASES.

To the Editor of the Medical Record.

Sir—In a recent number of the Record there is a communication from Dr. W. T. Walker, warmly advocating the use of Kennedy's concentrated extract of Pinus Canadensis.

My experience with it leads me to concur with the writer as to its therapeutical virtues in the treatment of abrasions of the os and cervix uteri; also of its efficacy in acute and chronic vaginitis.

But in the treatment of endo-metritis I consider it a dangerous and uncertain remedy, as recently observed in two cases under my observation. In the first, I introduced a small cotton tent, coated with the extract, into the canal; half an hour afterwards the patient had an attack of severe uterine colic, which continued for forty-eight hours, notwithstanding the removal of the cotton, and free use of opium and hot fomentations.

Two weeks later, profiting by my experience in this case, I simply painted the canal of the cervix with the pure extract in another; in fifteen minutes she was taken with the most intense pain, which was finally controlled by the hypodermic use of morphine and hot fomentations. Thirty hours after, she had a chill, followed by severe metritis, which came nigh proving fatal. It is barely possible that I may have gone in both cases beyond the os internum; but, as I only met with one other accident in uterine therapeutics—a severe vaginitis, resulting from the application of chromic acid to an aggravated case of granular ulceration of the os—I must be permitted to doubt it.

There is another remedy in uterine therapeutics, which I think is of great benefit in functional dysmenorrhœa and menorrhagia, which seem to depend chiefly on an atony and passive congestion of the uterus; I allude to the sulphate of beberia. The following cases serve to illustrate its efficacy:—

A young lady, aged 17, at a boarding-school, had been suffering for two years from dysmenorrhœa; various remedies had been tried, but had all failed; anodynes affording the only relief during the period. I gave her the sulphate of beberia and lactate of iron, two grains of each three times a day; three weeks after she had a free and painless menstrual flow, if anything too profuse; since then she has been perfectly regular, and her general health excellent.

In a case of menorrhagia, depending upon the same pathological condition, I met with equal success. A young married lady, multipara, youngest child aged 10 months, was taken, a few weeks after weaning it, with a profuse menstrual flow, which continued to recur persistently every fortnight, sometimes continuing for two weeks, and which ergot, persulphate of iron, and astringent injections failed to control. I gave her the sulphate of beberia and lactate of iron. After six weeks' use of the remedy, she became perfectly regular, and has been so for the last four months; health and strength fully restored.

These cases fully confirm Dr. A. P. Merrill's views of its virtues as a uterine deobstruent and tonic. Per contra, in the amenorrhœa depending upon a chlorotic condition of the system and general anæmia, I have found it to be valueless.

Yours truly,

Eugene Peugnet.

74 West 25th Street.

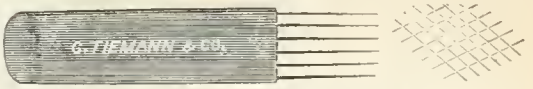
New Instruments.

A NEW VACCINATOR.

By ALFRED L. CARROLL, M.D.,

Health Officer, Town of Castleton, Staten Island, N. Y.

The accompanying wood-cut shows a convenient scarificator for vaccination, which Messrs. Geo. Tiemann & Co. have made for me. It is merely a simplifi-



cation of the ingenious instrument devised by Dr. F. P. Foster; its advantages consisting in its cheapness. An excellent absorbing surface is exposed, and the cost of the instruments is so trifling, that the physician may have a sufficient number to use a fresh one for each patient in a morning's work, thus insuring greater rapidity in operating, and at the same time avoiding all possible danger of transmitting any other disease than vaccinia by inoculating the patient with the blood of another.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 19th, 1872, to February 4, 1872, inclusive.

Peters, De Witt C., Surgeon.—By S.O. 16, Department of the South, January 23, 1872, assigned to duty at Lexington, Ky.

Storrow, S. A., Assistant Surgeon.—By S. O. 19, War Department, A. G. O., January 23, 1872, relieved at Fort Jefferson, Fla., and to proceed to Philadelphia, Pa., reporting thence by letter to the Surgeon-General.

Hubbard, Van Buren, Assistant Surgeon.—By S. O., 19, War Department, A. G. O., January 23, 1872, relieved at the U. S. Military Academy, West Point, N. Y., and assigned to duty at Fort Jefferson, Fla.

Brewer, J. W., Assistant Surgeon.—By S. O. 17, Department of the Mo., January 29, 1872, to return to Fort Larned, Kan., and resume his duties at that post.

Koerper, Egon A., Assistant Surgeon.—By S. O. 5, Department of Texas, January 9, 1872, granted leave of absence for thirty days, with permission to leave the limits of the Department.

Girard, Jos. B., Assistant Surgeon.—By S. O. 22, War Department, A. G. O., January 26, 1872, assigned to temporary duty at Newport B'ks, Ky.

Wilson, W. J., Assistant Surgeon.—By S. O. 15, District of New Mexico, January 25, 1872, assigned to duty at Fort Selden, N. M.

Fitzgerad, J. A., Assistant Surgeon.—By S. O. 19, War Department, A. G. O., January 23, 1872, assigned to duty at the U. S. Military Academy, West Point, N. Y.

Moffat, P., Assistant Surgeon.—By S. O. 28, War Department, A. G. O., February 2, 1872, granted leave of absence for thirty days.

Corson, J. K., Assistant Surgeon.—By S. O. 11, Department of the Platt, January 20, 1872, granted leave of absence for thirty days, with permission to apply for an extension of thirty days.

Medical Items and News.

Medical Declaration Respecting Alcohol.—The following declaration of 261 of the leading physicians and surgeons of London and the Provinces appeared in the columns of the *Medical Press and Circular* of Dec. 21st, and has awakened a good deal of comment by medical and secular journals.

"As it is believed that the inconsiderate prescription of large quantities of alcoholic liquids by medical men for their patients has given rise, in many instances, to the formation of intemperate habits, the undersigned, while unable to abandon the use of alcohol in the treatment of certain diseases, are yet of the opinion that no medical practitioner should prescribe it without a sense of grave responsibility. They believe that alcohol, in whatever form, should be prescribed with as much care as any powerful drug, and that the directions for its use should be so framed as not to be interpreted as a sanction for excess, or necessarily for a continuance for its use when the occasion is past.

"They are also of opinion that many people immensely exaggerate the value of alcohol as an article of diet, and since no class of men see so much of its ill effects, and possess such power to restrain its abuse, as members of their own profession, they hold that every medical practitioner is bound to exert his utmost influence to inculcate habits of great moderation in the use of alcoholic liquors.

"Being also firmly convinced that the great amount of drinking of alcoholic liquors among the working classes of this country is one of the greatest evils of the day, destroying—more than anything else—the health, happiness, and welfare of those classes, and neutralizing, to a large extent, the great industrial prosperity which Providence has placed within the reach of this nation; the undersigned would gladly support any wise legislation which would tend to restrict within proper limits the use of alcoholic beverages, and gradually introduce habits of temperance."

About the only objection mentioned, relates to the first paragraph, and the *Lancet* article on the subject puts it as tersely as any. It thinks it is a shabby thing to attribute to the profession the creation of intemperate habits. At the very most, the reckless prescription of large quantities of stimulant is a rare and exceptional act. It does happen occasionally, but not often enough to explain the vice in one case in a hundred. A liking for these things is father to the theory that they are beneficial, and in too many cases the doctor is made the scape-goat.

American Medical Association.—The Twenty-third Annual Session will be held in Philadelphia, Pa., May 7, 1872, at 11 A.M.

The following Committees are expected to report: On Cultivation of the Cinchona Tree, Dr. Lemuel J. Deal, Pennsylvania, *Chairman;* on the Anatomy and Diseases of the Retina, Dr. R. F. Michel, Alabama, *Chairman;* on the Comparative Pathology and the Effects which Diseases of Inferior Animals have upon the Human System, Dr. Geo. Sutton, Indiana, *Chairman;* on the Structure of the White Blood-Corpuscles, Dr. J. G. Richardson, Pa., *Chairman;* on Vaccination, Dr. T. N. Wise, Kentucky, *Chairman;* on Skin Transplantation, Dr. J. Ford Thompson, D.C., *Chairman;* on the Nature and Process of the Restoration of Bone, Dr. A. L. McArthur, Illinois, *Chairman;* on some Diseases Peculiar to Colorado, Dr. John Elsner, Colorado, *Chairman;* on Correspondence with State Medical Societies, Dr. N. R. Davis, Illinois, *Chairman;* on National Health Council, Dr. Thomas M. Logan, California, *Chairman;* on Nomenclature of Diseases, Dr. Francis Gurney Smith, Pa., *Chairman;* on What, if Any, Legislative Means are Expedient and Advisable to Prevent the Spread of Contagious Diseases, Dr. M. H. Henry, New York, *Chairman;* on American Medical Necrology, Dr. J. D. Jackson, Kentucky, *Chairman;* on Medical Education, Dr. J. S. Weatherly, Alabama, *Chairman;* on Medical Literature, Dr. Theoph. Parvin, Indiana, *Chairman;* on Prize Essays, Dr. Alfred Stillé, Pa., *Chairman.*

On the Climatology and Epidemics, the Chairman of Committee for each State.

Physicians desiring to present papers before the Association, should observe the following rule:—

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of his Section, to determine the time and order of their presentation, and give due notice of the same. . . . "

The following are the Officers of Sections:—

Chemistry and Materia Medica: Drs. R. E. Rogers, Philadelphia, Pa., Chairman; Ephraim Cutter, Boston, Mass., Secretary; *Practice of Medicine and Obstetrics,* Drs. D. A. O'Donnell, Baltimore, Md., Chairman; Benj. F. Dawson, New York, N. Y., Secretary; *Surgery and Anatomy,* Dr. John T. Hodgen, St. Louis, Mo., Chairman; W. F. Peck, Davenport, Iowa, Secretary; *Medical Jurisprudence, Hygiene, and Physiology,* Drs. S. C. Busey, Washington, D.C., Chairman; E. L. Howard, Baltimore, Md., Secretary; *Psychology,* Dr. Isaac Ray, Philadelphia, Pa., Chairman; John Curwen, Harrisburg, Pa., Secretary.

Secretaries of all medical organizations are requested to forward lists of their Delegates, as soon as elected, to the Permanent Secretary, W. B. Atkinson, M.D., Philadelphia.

An Annual Exhibition for the Philadelphia Meeting of the American Medical Association.—The undersigned, Chairman and Secretary of the Committee of Arrangements of the American Medical Association, have been authorized to invite attention to the project of an exhibition of objects interesting to the medical profession, to be held in Philadelphia during the next session of the Association. This exhibition has been suggested as a desirable amplification of what has been customary on these occasions; and is expected to resemble, more or less, the displays of this kind which are prominent features of the annual meetings of the British Medical Association.

In accordance with this determination to have an exhibition on the 7th, 8th, 9th, and 10th of May, 1872, during the next Session of the Association, the Committee of Arrangements would respectfully and earnestly appeal for contributions of objects to be exhibited—and for other available co-operation—to members of the medical profession, pharmacists and manufacturers of chemicals, to opticians, instrument-makers, publishers, and booksellers, and to all others who are concerned in manufacturing or dealing in anything related to the study and practice of medicine and surgery and the associate sciences.

They will gratefully receive choice specimens and examples (likely to prove interesting through novelty, rarity, importance, or superior character) of drugs, medicines, and other remedial appliances—including

special chemicals and pharmaceutical compounds and materials—as well as the apparatus employed in pharmaceutical and chemical processes; also of optical and other instruments of observation and precision; of surgical instruments and implements; of preparations and objects in natural history, including human and comparative anatomy, morbid or healthy; of models, drawings, paintings, prints, and of printed works—of recent date or standard character—on medicine, surgery, and the associate sciences.

The general plan of arrangement, and amount of space to be allotted to the several departments and collections, will have to be decided by the end of March; and all the objects to be exhibited must be within reach of the committee by the second or third week of April next. In order, therefore, to prevent confusion and disappointment, lists of objects offered for exhibition, and estimates of the amount of space desired for the purpose, will be required as soon as practicable after the publication of this circular.

Communications addressed to Wm. Pepper, M.D., 1,215 Walnut street, and F. F. Maury, M.D., 1,218 Walnut street, the Sub-Committee on the Exhibition, will receive immediate attention. By order of Edward Hartshorne, M.D., *Chairman of the Committee of Arrangements;* D. Murray Cheston, M.D., *Secretary.*

The Rush Medical College building having been destroyed by the great Chicago fire, the Faculty, in order fully to maintain the interests of the college and to preserve its advantages to students of Medicine, have secured the lecture and clinic rooms of the Cook County Hospital, corner of Eighteenth and Arnold streets, in which to hold the usual Spring course.

Long Island College Hospital.—John Byrne, M.D., Surgeon-in-Chief of St. Mary's Hospital of this city, has been appointed "Clinical Professor of Gynæcology of the Long Island College Hospital."

The Medical Society of the County of Ulster (N. Y.) and Abortion.—At the monthly meeting held at Ellenville, on Tuesday, Jan. 9, A. T. Douglas, M.D., Vice-President, in the chair, unanimously adopted the following:— *Whereas*, A legal investigation of the case of Marietta Gray, late of this town, deceased, has clearly shown that her death resulted from an abortion, criminally produced by one Fanton Sherwood; therefore,

Resolved, That we most emphatically condemn criminal abortion, by whomsoever produced; and that we hereby acknowledge our duty, and avow our determination to aid by all the means in our power in bringing to justice any person or persons who may be guilty of the aforesaid crime.

Resolved, That we hereby censure the authorities of the County of Sullivan for not arresting Fanton Sherwood and others (who to their knowledge were reasonably known to be the guilty parties), previous to the verdict of the Coroner's jury, thereby allowing Sherwood to escape; and that we further censure the said authorities for not taking more active measures for the apprehension of the aforesaid guilty parties, and especially for neglecting to inform the authorities of the County of Ulster, within whose jurisdiction the crime was committed.

Resolved, That we urge the proper authorities to the prosecution of vigorous and unremitting exertions for the arrest and punishment of Fanton Sherwood and all others who may have participated in his felony.

Resolved, That the Chairman of this Committee be directed to transmit copies of these resolutions to the County Judges and District Attorneys of the Counties of Sullivan and Ulster, and also to the Sullivan County Medical Society.

[Signed] D. M. La Moree, Sec., *pro tem.*
B. R. Bevier, M.D.
W. F. Scoresby, M.D. } Com.
J. J. Ward, M.D.

Alumni Association of the Jefferson Medical College, Philadelphia.—The Alumni Association of this medical college proposes to hold a social reunion during the meeting of the American Medical Association in the city of Philadelphia in June next. The Alumni of the College are invited. Those who expect to be present are requested to send their names and addresses to either of the Secretaries: Drs. J. Ewing Mears, 222 S. Sixteenth street, and R. J. Dunglison, 636 N. Eighteenth street.

Medical Supply Table of United States Marine Hospitals.—Circular No. 6, United States Marine Hospital Service, contains a new Medical Supply Table, in force from Dec. 31, 1871, revised by John M. Woodworth, Supervising Surgeon of this service. To permit medical officers to indulge in individual preferences, a secondary list of medicines has been prepared.

New York Medical Library and Journal Association.—At the Annual Meeting of this Association the following officers were elected: *President*, Dr. Alfred Underhill; *First Vice-President*, Dr. E. R. Peaslee; *Second Vice-President*, Dr. W. N. Blakeman; *Recording Secretary*, Dr. F. A. Burrall; *Corresponding Secretary*, Dr. J. C. Peters; *Librarian*, Dr. A. E. M. Purdy; *Trustees for three years*, Drs. S. T. Hubbard, W. R. Whitehead, L. Weber, E. S. F. Arnold, and G. M. Smith; *Trustees to fill vacancies for one year*, Drs. C. C. Lee, J. P. Garrish, and B. I. Raphael.

New journals and books are constantly being added to the library, which already has thousands of well-bound volumes, which are accessible to members between the hours of nine A.M. and nine P.M. First-class papers are read every Friday evening, from the 1st of October until July, followed by profitable discussions. Nearly three hundred medical men are included on its roll of membership.

The Medical Examiner, Chicago.—The January number of this medical journal of the North-west is presented in a new form and new dress, and will hereafter be issued *semi*-monthly instead of *monthly*, as heretofore. The editors are Drs. N. S. Davis and F. H. Davis.

Death of Dr. Henry D. Bulkley.—At a meeting of the New York Medical and Surgical Society, held January 13th, 1872, the following resolutions, offered by Dr. A. C. Post, were unanimously adopted:—

Resolved, That this Society has heard with profound regret of the death of Dr. Henry D. Bulkley, one of its original members.

Resolved, That we cherish his memory as that of an earnest and diligent worker in the promotion of medical science, and in the advancement of the healing art.

Resolved, That our long association with him has deepened our conviction of the excellence of his character as a faithful and conscientious physician, as a true and warm-hearted friend, and as a pure and upright man in all the relations of life.

Resolved, That we sympathize with his family in their bereavement, and that we rejoice with them that he was cheered in his dying hours by the hope of a blessed immortality.

Resolved, That a copy of these resolutions be for-

warded to the family of the deceased, and that they be published in the medical journals of this city.

THOS. F. COCK, M.D., President.
ROBT. WATTS, M.D., Secretary.

MEDICAL SOCIETY OF THE COUNTY OF KINGS.—At the Fifty-first Annual Meeting of this Society, the following officers were elected:—*President*, Wm. Henry Thayer; *Vice-President*, A. J. C. Skene; *Secretary*, Richard M. Wyckoff; *Assistant Secretary*, Audley Haslett; *Treasurer*, J. S. Prout; *Librarian*, W. W. Reese; *Censors*, J. H. H. Burge, S. G. Armor, J. T. Conkling, H. G. Newton and C. H. Giberson; *Orator*, A. B. Crosby; *Alternate*, Alex. Hutchins.

DEATHS FROM SMALL-POX IN MASSACHUSETTS.—According to the third annual report of the Massachusetts Board of Health, during the last twenty-eight years, about three thousand deaths occurred in that State from small-pox.

DEATH OF AN EX-PRESIDENT OF THE VERMONT STATE MEDICAL SOCIETY.—Died recently in Castleton, Vt., Joseph Perkins, M.D., aged 73. He was one of the founders of the Vermont State Medical Society, and for many years its honored president. For several years he was Professor of Materia Medica and President of the Trustees in Castleton University, and afterwards professor in the University of Vermont.

INEBRIATE REFORM IN ENGLAND.—Mr. Dalrymple, M.P., who recently made a tour of inspection of the inebriate asylums in the United States, intends to bring the result of his observations before the English Parliament. He proposes to secure additional information by introducing a motion to empower the Committee of the House of Commons to invite leading American medical experts to give evidence before it as to the methods and progress of inebriate reform in America.

NEWARK, N. J., MEDICAL ASSOCIATION.—At a recent meeting of this Association, organized in 1835, the following officers for 1872 were elected: *President*, Dr. Peter V. P. Hewlett; *Vice-President*, Dr. Charles Young; *Treasurer*, Dr. J. A. Cross; *Secretary*, Dr. A. K. Baldwin.

SMALL-POX in this city is reported to be on the decline.

MEDICAL SOCIETY OF NEW JERSEY.—The transactions of this Society for 1871, show an active membership of 368, representing 16 district societies. It has had 19 honorary members. Five active members died during the year. The following officers were elected at the annual meeting, held at Flemington, May 23, 1871: *President*, Dr. Charles Hasbrouck, of Hackensack; *Vice-Presidents*, Drs. Franklin Gaunt, T. J. Thomason, G. H. Larison; *Corresponding Secretary*, Dr. Wm. Elmer, Jr., Trenton; *Recording Secretary*, Dr. Wm. Pierson, Jr., Orange; *Treasurer*, Dr. H. R. Baldwin, New Brunswick.

STATISTICS OF THE RACE.—The earth is inhabited by about 1,380,000,000 of inhabitants, namely: 389,000,000 of the Caucasian race, 580,000,000 of the Mongolian, 200,000,000 of the Ethiopian, 220,000,000 of the Malay races, and 1,000,000 of the American Indian. All these respectively speak 3,064 languages, and possess 1,000 different religions. The amount of deaths per annum is 33,333,333, or 91,954 per day, 3,730 per hour, 60 per minute, or one per second. This loss is compensated by an equal number of births. The average duration of life throughout the globe is thirty-three years. One-fourth of its population dies before the seventh year, and one-half before the seventeenth. Out of 10,000 persons only one reaches his hundredth year; only one in 500 his eightieth; and only one in 100 his sixty-fifth. Married people live longer than unmarried ones, and a tall man is likely to live longer than a short one. Until the fiftieth year, women have a better chance of life than men; but beyond that period the chances are equal. Sixty-five persons out of 1,000 marry. The months of June and December are those in which marriages are most frequent. Children born in spring are generally stronger than those born in other seasons. Births and deaths chiefly occur at night. The number of men able to bear arms is but one-eighth of the population.—*N. Y. Observer Year-Book.*

A NEW HOSPITAL LIBRARY.—Bellevue Hospital is to have a circulating library for the use of its patients. Warden Brennan will properly take care of all books sent to that institution by contributors.

MEDICAL, DENTAL, AND PHARMACEUTICAL INSTITUTIONS IN THE UNITED STATES.—There are 55 *regular* medical schools in the United States; 3 *regular* female medical colleges; 5 institutions representing the *eclectic* system; 7 male and female *homœopathic* schools; and 2 *botanic*. The oldest medical college in this country is the time-honored Medical School of the University of Pennsylvania, founded in 1765. The next oldest, is the Medical Department of Dartmouth College, N. H., organized in 1796—these two were the only ones founded in the 18th century.

There are six respectable dental schools in this country: the Baltimore College of Dental Surgery, founded in 1839, is the oldest. The pharmaceutical associations and societies are twenty in number; of these, the Philadelphia College of Pharmacy is the oldest, founded in 1821.

SMALL-POX HOSPITAL ON BLACKWELL'S ISLAND, N. Y. HARBOR.—Dr. A. E. Macdonald, chief of staff of this small-pox hospital, reports the following statistics: Admissions for the year 1871, 1,334 males, 1,164 females; 1,097 native, 1,401 foreign. Deaths, 321 males, 212 females; 303 native, 230 foreign. Remaining, Jan. 1, 1871, 28; admitted during 1871, 2,498. Total treated in 1871, 2,526. Percentage of deaths, 21.1. Remaining in hospital, Jan. 1, 1872, 75 native, 97 foreign; 97 males, 75 females.

ANCIENT STATE OF SURGERY IN SCOTLAND.—When the surgeons of Edinburgh were, in 1505, incorporated under the denominations of surgeons and barbers, it was required of them to be able to read and write, "to know anatomie, nature, and complexion of everie member of humanis bodie, and lykwayes to know all vaynes of the samyn, that he may make flewbothemie in dew time;" together with a perfect knowledge of shaving beards. These were all the qualifications that seemed necessary to the art of surgery at the beginning of the sixteenth century. The practice of physic was, if possible, in a still more deplorable state.—*Campbell's Journey from Edinburgh to the Highlands.*

THE CÆSAREAN OPERATION.—The first authentic instance of this operation in the British Isles, was that performed with success by Mary Dunally upon Alice O'Neal, in Ireland, in 1739, after a labor of twelve days; and the first *recorded* in the United States, by a girl of fourteen years of age upon herself, in 1822. Of the first 38 cases operated upon in Great Britain, covering the period from 1739 to 1845, but four are recorded, one being that referred to as the work of a common midwife. Several women have been known to recover, and their children live, after the latter have been removed from them through a rent produced by the horn of a bull or cow.—*Am. Journ. Obstetrics.*

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